ARCHAEOLOGY AND ARCHITECTURE IN THE IRON AGE HILLFORTS OF NORTHWEST PORTUGAL

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ABSTRACT

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Title: Archaeology and Architecture in the Iron Age Hillforts of Northwest Portugal

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The Castro Culture roughly corresponds to the northwest of Iberia, from the Iron Age through the first centuries of the Roman Period (ca. 900 B.C.E. — 100 C.E.). Castro sites are defined primarily by their status as hillforts, but they share several other distinct characteristics. For example, there is an overwhelming prevalence of circular structures. The apparent ubiquity of this architectural trend has been emphasized to such an extent that the Castro Culture is often perceived as a culture of "round-houses." While this terminology suggests familiarity, the Castro Culture as a whole is poorly understood. Large-scale, in-depth investigations of castro architecture are quite few, and those that have been produced exclude most Portuguese sites. Speaking purely in terms of architecture, no more than a handful of castros in Portugal have been thoroughly considered in a regional context. Furthermore, previous architectural monographs have tended to take a broad approach that overlooks essential details. This thesis seeks to provide a thorough account of the architectural remains of three castro sites in Northwest Portugal: Santa Luzia (Viana do Castelo), São Lourenço (Esposende), and Terroso (Póvoa de Varzim). A detailed account of the architectural evidence for these three sites is provided, and a few other sites are considered in minimal detail for the sake of making specific comparisons. The fundamental contribution of this thesis is to demonstrate the most effective path forward, establishing the foundations for an updated synthesis of the architecture of the Castro Culture in Northwest Portugal.

ACKNOWLEDGEMENTS

This work is dedicated to my father and mother, who together have given me everything that I cherish, who together have taught me what matters most, and who together have brought me wherever I may go.

I must also take this opportunity to express my sincerest gratitude to Dr. Wade and Dr. Taylor, both for inspiring me to become an archaeologist and for believing in my ability to succeed; I cannot thank them enough.

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This Honors Thesis is presented to the University of Texas at Austin in fulfillment of the requirements of Departmental Honors in Anthropology as well as the Plan II Honors Program. It constitutes an archaeological investigation and an exercise in effective research methodology, focusing on a specific type of architecture found in the Iron Age hillforts of Northwest Portugal.

My thesis primarily seeks to compile, organize, and present a body of physical evidence as well as quantitative and qualitative data. By presenting a body of evidence that has not yet been considered in a large-scale architectural monograph, this work stands to make a contribution to the current state of research. Objective data will be collected and interpreted according to well-established methodologies, and various relevant theories will be considered and rigorously evaluated to reach meaningful conclusions. Yet the most important goal of this thesis is to establish the foundations for further research, with the aim of eventually publishing a far more extensive monograph on the architecture of the littoral northwestern Portuguese hillforts.

The content and aim of this investigation are very specific, and it is necessary to establish context both within the region and within the current state of research. The following sections will provide this context by defining some fundamental concepts and terms, discussing the history of research, and establishing the geographic and temporal parameters of this investigation.

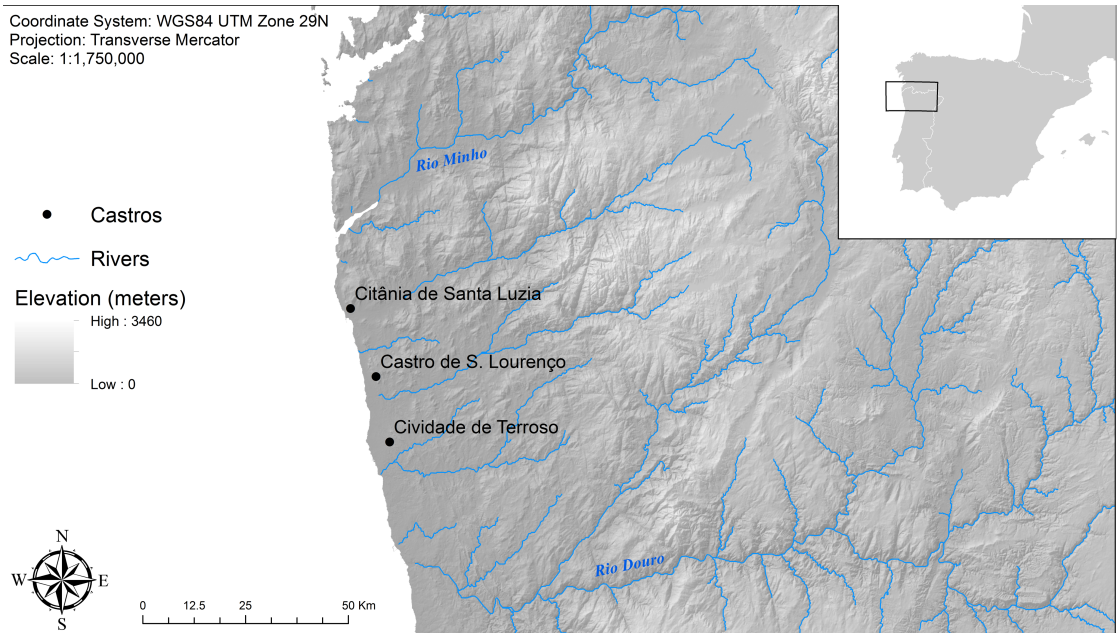


Figure 1: Location of the three sites under study (map by Jordan Bowers).

The primary goal of this thesis is to provide a detailed account of the architectural evidence for three castro sites: Terroso in the district of Porto, Santa Luzia in the district of Viana do Castelo, and São Lourenço in the district of Braga (Figure 1). After gathering a large collection of documents and thoroughly familiarizing myself with the literature, I chose these sites for three main reasons. First, the evidence available from these sites allows for meaningful discussion about architectural trends, but it also exemplifies some of the most common challenges in castro archaeology. Second, details from these three sites have been excluded from large-scale architectural investigations. Third, these sites are located in the three modern districts that essentially compose the geographic region of *Entre Douro e Minho* in northwest Portugal, which is the explicit region of interest.

The first task was to collect and organize the available evidence, and then to translate and comprehend it. The next was to determine what portion of the evidence was needed to establish a thorough understanding of the built space at each site as well as to justify interpretive claims and inferences. The results of this process constitute most of Chapters 2 through 4. Rather than merely citing authors' claims, this thesis seeks to evaluate current theories in light of available evidence whenever possible. This more detailed and skeptical approach serves as a small-scale demonstration of the sort of rigorous methodology that will be necessary to produce a more informative and reliable synthesis of castro architecture. The need for such a work is illustrated in the following sections.

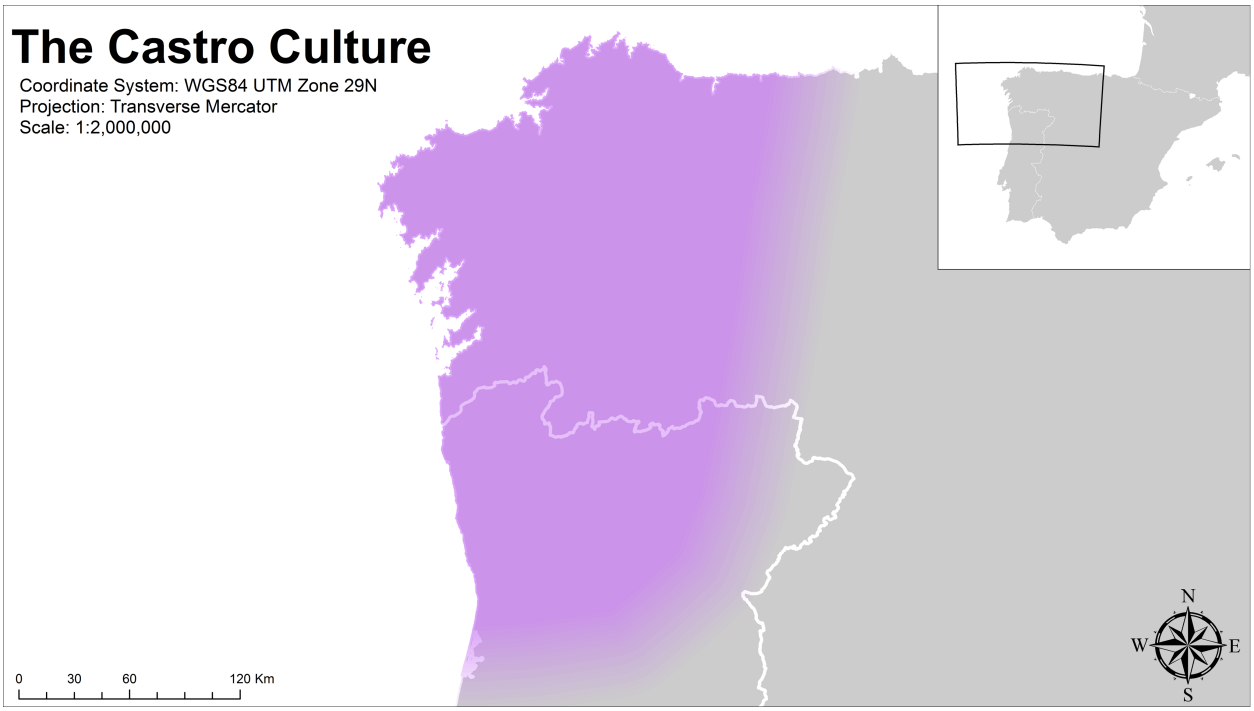


Figure 2: Approximate range of the Castro Culture (map by Jordan Bowers).

'The northwest' in general refers to the portion of Iberia inhabited by the Castro Culture, and it includes the north of Portugal, all of Galicia, and certain western portions of Asturias, León, and Zamora. (Figure 2). My investigation focuses specifically on the littoral region of northwestern Portugal, bounded to the south by the Douro River and to the north by the Minho River. Within this geographic range, a distinction is made between the coastal and central regions based on topographical differences, which occur at different longitudes depending on the latitude in question. As such, it is more useful to establish the eastern boundary of this investigation on a site-by-site basis, rather than by making reference to a specific geographic feature (Figure 3).

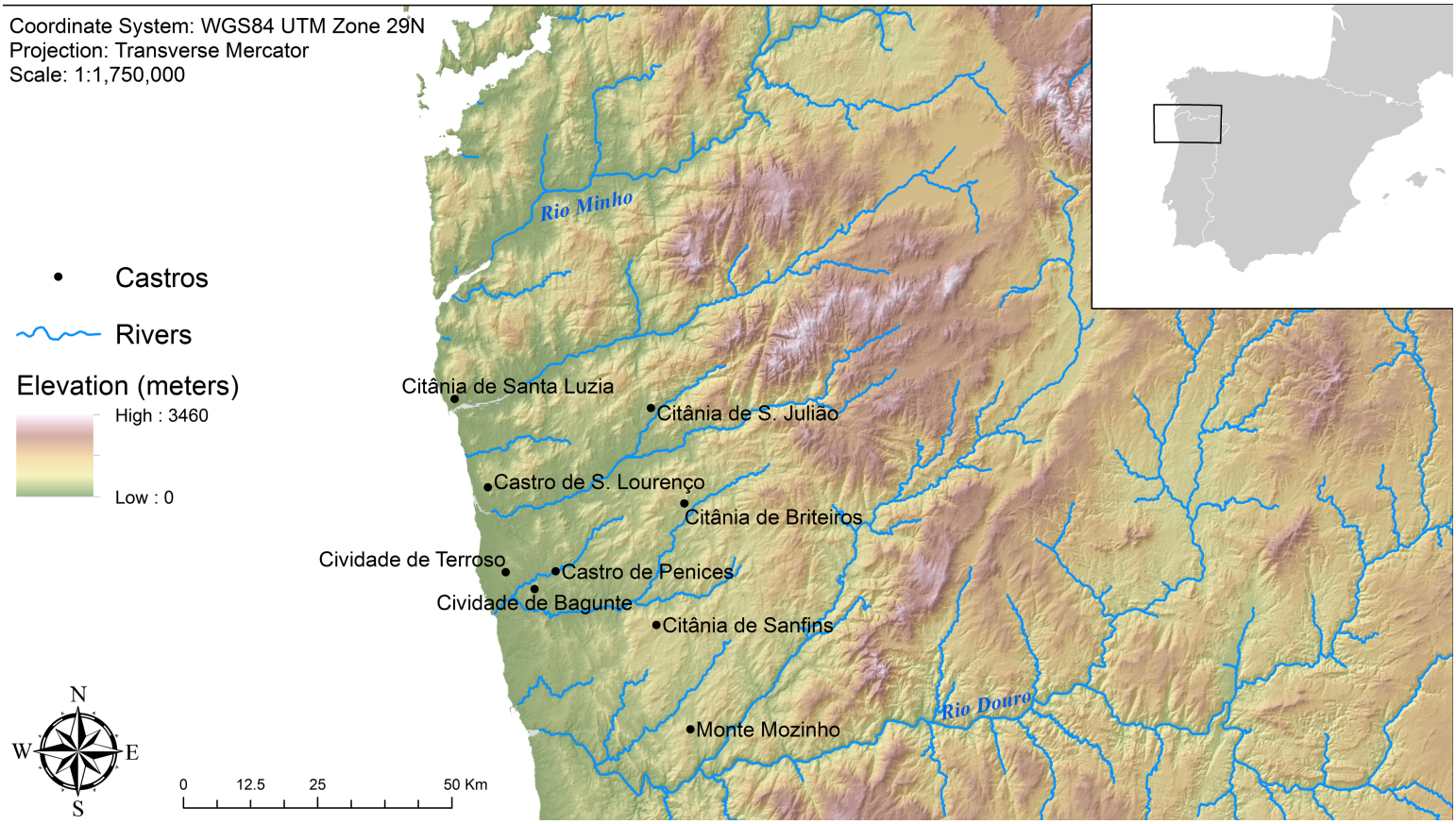


Figure 3: A few castros, out of many, in the littoral northwest of Portugal (map by Jordan Bowers).

Researchers who have studied the archaeological record of the northwest have observed a number of patterns in the physical evidence (Parcero Oubiña 2004; Queiroga 1992). These seem to appear in the very final stages of the Atlantic Bronze Age and persist through the first centuries of this region's Roman Period (ca. 900 B.C.E. — 100 C.E.). Based on these observations, the 'Castro Culture' was conceived as distinct cultural tradition whose presence underlies and explains the existence of broad similarities between prehistoric communities. In other words, this designation points to a set of cultural characteristics visible in the archaeological record. These include various aspects of material culture, such as formal styles in pottery and various decorative motifs (Almeida 1974; López-Cuevillas 1989; Silva 1986). As will be discussed in the following section, the criteria also involve settlement practices.

The Castro Culture seems to have arisen gradually as a product of the endogenous sociocultural conditions of the local Bronze Age, later reflecting a gradual transition from a culturally distinct group of indigenous communities to 'Romanized' provincial society. Despite the relative uniformity of certain aspects of their material culture, each castro site is unique. Additionally, there is no reason to assume that castro communities consciously shared a group identity with other communities whose remains satisfy the term's criteria. While this much seems clear, the question of the castro peoples' identity remains elusive, as does their linguistic affiliation, let alone the possibility of different languages or dialects. Various theoretical approaches have allowed for some tentative speculation about the nature of individual and group identity in the Castro Culture (e.g. González-Ruibal 2006; Parcero Oubiña 2003; Sastre 2002; 2008; Silva 1980; 1981a).

The 'Castro distinction,' or the conception and application of the term 'Castro Culture,' follows from decades of research and discourse. Still, this classification is not universally accepted. A number of researchers have criticized the traditional notion that the entire northwest can be described in terms of a single 'culture' (González Álvarez 2011; González-Ruibal 2007). These recent revisionist perspectives are worth considering, but their discussion is beyond the scope of this work. For the purposes of this investigation, the Castro Culture as it was explicitly defined above will be treated as a 'fact.' This simplification is acceptable because the validity of this broad cultural distinction has no bearing on the contents of my thesis. In short, this investigation only concerns itself with the littoral northwest of Portugal, not the northwest as a whole,

circumventing common disagreements about the usefulness of the Castro distinction on wider scales. Having accepted the Castro distinction on a conceptual basis, it is necessary to briefly discuss some of the trends that characterize castro sites, in order to clarify the distinction and the evidence upon which it supervenes. For further clarification on my usage of the term 'castro,' one may consult Appendix 1.

The hillfort settlement type is defined by two qualities. The first is substantial fortification, namely a perimeter of defensive walls and/or earthworks enclosing the settlement. The second is a 'prominent' position in the landscape. Typically this means that hillforts are significantly elevated with respect to the surrounding territory, but such is not always necessarily the case. Interpreting site location is a complex issue. In general, the location of the castros seems to be influenced by many factors, such as: elevation, proximity to shores or rivers, access to natural resources, favorable viewsheds, defensive potential, and relationships between sites (Dinis 1993; Sande Lemos et al. 2011; Sastre 2008). The near universality of the hillfort settlement type is perhaps the most visible of the northwest's evidential patterns, and it is viewed as fundamental to the definition of a castro site (Queiroga 1992).

While the Late Iron Age castros that persist through the Roman Period differ significantly from the earliest settlements, there is continuity to a certain extent. This can be observed in several dimensions of the material culture, but perhaps most visibly in the persistent occurrence of circular architecture (Ayán Vila 2008). This affinity for circular forms constitutes one of the Castro Culture's defining evidential characteristics. Castro structures are also typically made in stone (Hawkes 1984; Queiroga 2015).

Celtic influence is another fundamental component of the Castro distinction. While Atlantic and Mediterranean influences may be understood at least partially in terms of trade networks (González-Ruibal 2004), the source of Celtic influence in this region is far more contentious and difficult to ascertain. Opposing sides consider whether the Castro Culture's characteristics resulted from autochthonic developments,

trade influences, or 'Celtic immigration' (López-Cuevillas 1989; Queiroga 1992; Silva 1986). Evidence of Celtic influence is quite prevalent, for example in the appearance of Celtic symbology in various media, such as ceramic, stone and metal.

Most researchers claim that by the 1st century C.E., the architecture of inhabited sites exhibited distinct deviations from the original castro patterns. Given that circular forms seem to be an indigenous practice, it is commonly suggested that rectangular forms were a Roman introduction. As will be discussed later, the availability of architectural evidence from periods prior to Roman contact makes this assumption questionable. Other effects of Roman presence are more clear, for example: new settlements are established, new roads are built, Latin script appears, Roman artifacts and technology become widespread, intensive mining operations begin in specialized settlements, administrative systems and districts are imposed, and certain large castro settlements are converted into even larger Roman *oppida* (Currás 2014; Parcero Oubiña 2004; Queiroga 1992; Silva 1986). In short, the consequences of Roman conquest are manifested to an increasingly visible extent as the Roman Period progresses, a fact which largely explains the disappearance of the Castro Culture's distinct characteristics alongside the gradual abandonment of sites (Almeida 2014; Rodríguez Sánchez 2012). Still, it seems to be generally true of the Castro Culture that external influences were visibly manifested without fully replacing indigenous traditions. This holds true from the Castro Culture's first known manifestations until the early Roman Period, and even then it took at least a century of continual occupation to attenuate the distinctiveness of castro remains.

This section has made brief references to a few common trends in order to give a tentative and general impression of the Castro Culture. It must be emphasized that such an impression necessarily overlooks important details. The criteria of the term 'Castro Culture' are inherently broad, and its usage only communicates a set of general trends. Describing communities only in terms of these criteria obscures the uniqueness of sites and disregards regional variation, creating a false perception of homogeneity. But when its meaning and criteria are explicitly defined and its limitations are kept in mind, this term can be usefully applied. Again, this investigation deals exclusively with the littoral region of northwestern Portugal, and it does not attempt to project its conclusions onto other regions of the northwest.

The history of archaeological research in the northwest of Portugal begins with Francisco Martins Sarmento, who is universally credited with the discovery of the Castro Culture in this region. Documents from as early as the medieval period seem to acknowledge the existence of castros, using the term *castrum* or *castellum;* though one could argue that *s*uch terminology may describe a post-classical castle as well as a proto-historic hillfort (Queiroga 1992:3). Nevertheless, it is evident that the existence of certain castro sites was recorded. For example, the Cividade de Bagunte was referenced in medieval as well as 18th century documents, by a nearly identical name (C. Almeida and P. Almeida 2015). Such instances as well as toponymies imply that the existence of the castros had not been forgotten, but Sarmento is known as the first to systematically investigate them.

Sarmento's endeavors began in Guimarães, in 1875, with the excavation of Citânia de Briteiros. This work constitutes perhaps the earliest scientific investigation of a castro site in the northwest of Portugal. Thereafter he conducted annual excavations at Briteiros, eventually uncovering a considerable portion of the site. In 1878, he began excavations at Castro de Sabroso, another site in Guimarães nearby Briteiros. In addition, Sarmento traveled the northwest and excavated or observed many other sites. Neither his work at Sabroso nor his traveling excavations can be compared in scale to his work at Briteiros, but these explorations were important nevertheless.

Through his studies and travels, Sarmento recognized he was dealing with an ancient culture whose characteristics were distinct. For Sarmento, Celtic influence was very clear, as was Roman presence, yet neither of these was sufficient in itself to

explain the nature of the evidence. In the following years, Sarmento's findings drew significant attention from other scholars at both national and international levels. By the turn of the century, a great deal of archaeological research had taken place at castro sites. Though much had been published or at least recorded, the majority of relevant data existed in isolated documents or collections.

Near the end of the 19th century, José Leite de Vasconcelos made the first efforts to compile some of this scattered information (Queiroga 1992:3). In 1893, he founded the National Museum of Archaeology in Lisbon, thereafter serving as its first director. He also traveled to archaeological sites in the northwest and recorded his observations (e.g. Vasconcelos 1903).

In 1953, Florentino López-Cuevillas published *La Civilización Céltica en Galicia*. Focusing on the Iron Age in Galicia, this work constitutes the first large-scale monograph about the Castro Culture (Queiroga 1992:3). The next comparable work came in 1986, with the publication of *A Cultura Castreja no Noroeste de Portugal* by Armando Coelho Ferreira da Silva. These two works address the Castro Culture from the regional perspectives of Galicia and Portugal respectively, and the titles the authors chose emphasize some of the debates mentioned above regarding the Celtic or autochthonic components of the Castro Culture. Silva's 2007 reedition of his work is still the most recent, extensive, and general scholarly study available for the Castro Culture.

Beginning in the 1970s, archaeological methodologies in the northwest advanced considerably, as stratigraphic profiles and other important types of evidence began to

be recorded and analyzed with greater care than in the past. The continual updating of methodologies and technologies has allowed for new categories of evidence and theoretical approaches to enter the archaeological discussion (Queiroga 1992:3-6). By the 1980s, radiocarbon dating had become fairly widespread and accessible. Previously, researchers had relied almost exclusively on relative chronologies derived from artifactual analysis and, especially, Roman coins and inscriptions (Queiroga 2015). While these techniques remain essential, the introduction of chronometric dating was a significant step forward.

Armando Coelho Ferreira da Silva has constructed a general chronology that splits the development of the Castro Culture into three main phases (Figure 4). Since then, various authors have proposed new chronologies. There is some disagreement, but in many cases it is a matter of editing and updating Silva's framework rather than fully replacing it. Regional and thematic studies have increased in number as well, and new approaches such as landscape archaeology, the archaeology of architecture, and various social theories have been applied to the study of the Castro Culture (e.g. Ayán Vila et al. 2003; Parcero Oubiña 2003; Sande Lemos et al. 2011; Sastre 2002; 2008). In this way and others progress has been made, but vast amounts of scattered data remain to be synthesized.

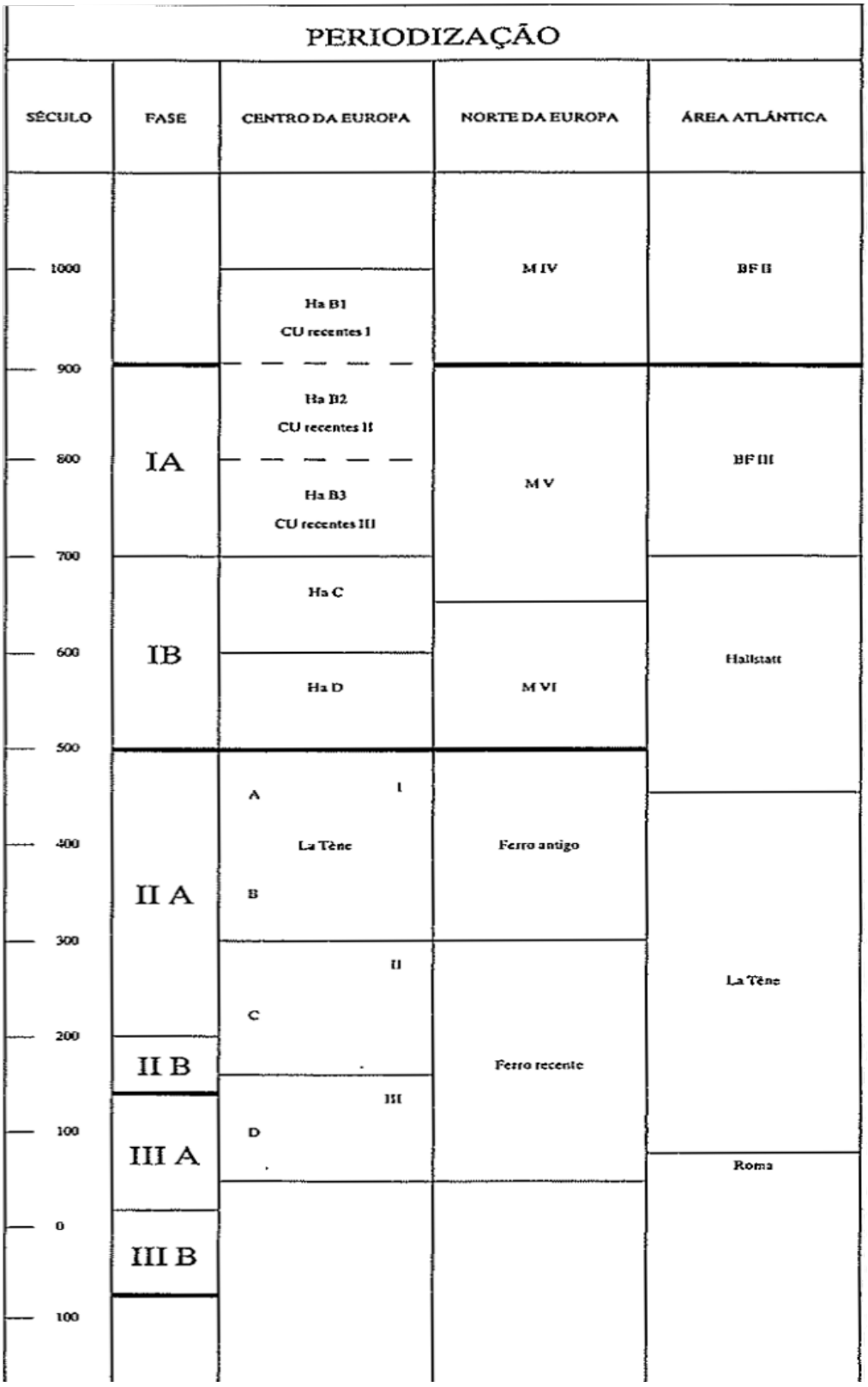


Figure 4: Silva's Phases for the Castro Culture, in the two far-left columns (after Silva 1986).

Sarmento's initial reconstructions at Briteiros sparked interest in castro architecture, but he also recognized the need to investigate further. Felix Alves Pereira's work in the early 1900s can perhaps be viewed as the first approach to the topic. His work included an attempt to construct a typology of common castro architectural forms, which he sought to accomplish via formal description of the structures he encountered (Ayán Vila 2002:139). Similarly, Florentino López Cuevillas integrated a collection of architectural data into his 1953 publication. The evidence and ideas he put forth, including typological assessments, constituted a major step forward in the study of castro architecture. For a variety of reasons, moving beyond typological and descriptive works has proven to be a difficult process, and most of the questions that could not be answered in 1953 have still not been resolved (Ayán Vila 2008:6).

Ana María Romero Masiá published the first major monograph on castro architecture, *El habitat castreño*, in 1976. As discussed in the previous section, significant advancements in research have taken place since the 1970s, due in part to the introduction of new technologies and methodologies. The study of architecture was also advanced through the introduction of new theoretical approaches and the more frequent appearance of brief thematic essays (Queiroga 2015:264). These include works by Carlos Alberto Ferreira de Almeida (1984) and Armando Coelho Ferreira da Silva (1983; 1995). These archaeologists, and many others, have drawn from available evidence in order to produce a series of condensed theoretical assessments of the Castro Culture. Notable in the English literature is a general assessment by Hawkes (1984), which concerns itself, albeit briefly, with questions of castro architecture.

By the 1990s, theoretical developments led Galician researchers to explicitly address problems in archaeology and architecture, namely the need to 'update' prevailing theoretical and methodological approaches. This initiative culminated in the proposal of a new *archaeology of architecture*, put forth primarily by a team of researchers from the University of Santiago de Compostela (Ayán Vila et al. 2003).

In the early 2000s, Xurxo Ayán Vila approached the issue of castro architecture in a series of publications (e.g. Ayán Vila 2002; 2005). He also collaborated with Rachel Pope (University of Cambridge) and with Manuel Alberro (University of Wisconsin-Milwaukee) to publish his first extensive monograph on the topic (Ayán Vila et al. 2005-2006). In 2008, Ayán Vila published "A Round Iron Age," the most recent monograph on castro architecture. It is not only the most recent large-scale approach to the topic; it is also the first and only one to be published in English. As one of a very small number of architectural monographs produced to date, it is an accurate reflection of the current state of architectural research. Ayán Vila (et al. 2005-2006:177) states that his first monograph focused on compiling new evidence from Galician sites, and this is reflected in his 2008 work as well. More importantly, Ayán Vila takes a very broad approach that does not allow for the level of detail required to substantiate specific claims. In most cases, he simply cites the interpretations of authors rather than dealing directly with the evidence. In this way he provides a cohesive overview of the architecture as well as a large collection of references. Yet his approach is problematic, because it is prone to perpetuating unjustified assumptions and reinforcing a perception of castro homogeneity that disregards regional trends. This will be discussed further in Chapter 5.

To summarize, the Castro Culture is generally well known but poorly understood. This is due to the nature of the archaeological record of the northwest, as well as various features of the history of research in the region. There is much progress to be made in certain areas, such as architectural research. In this area, publications have tended to focus more heavily on Galician sites, and many Portuguese castros have not been considered. Furthermore, the literature is dominated by broad generalizations, and more rigorous approaches to the evidence have not been thoroughly pursued. Despite ample literature on the topic of Iron Age round-houses in general (e.g. Alberro 2008; Harding 2009), few publications have taken an in-depth approach to the architecture of individual castro sites.

As should now be clear, the most pressing need is for an updated synthesis of the evidence, and this finding constitutes the primary motivation of this Honors Thesis. The following chapters will address castro sites individually and in detail, providing a skeptical evaluation of the architectural evidence. The results of this process will be combined in the final chapter, establishing trends and deviations between the three sites and discussing the implications of this thesis for the current and future state of research. On a final note, one may consult Appendix 1 for clarification on various technical or specifically defined terms used in this thesis.

The Cividade de Terroso is a castro site located in the county of Póvoa de Varzim, in the district of Porto. The excavated portion of the site essentially consists of a roughly elliptical platform at the top of Monte da Cividade (Pinto 1932). This central platform measures about 90 m by 50 m on its major and minor axes, and it sits at an elevation of about 153 m (Dinis 1993:32; Sampaio 2014:205-206; Figure 5). Most of the central platform has been excavated at the surface level, revealing a fairly cohesive settlement plan that is tentatively presumed to represent a single occupational phase. The structures and materials encountered clearly identify Terroso as belonging to the Castro Culture, with artifactual and stratigraphic evidence pertaining to occupational phases both before and after Roman contact (Silva 1981b; 1986; Gomes 2005).

The archaeological remains, though incomplete, suggest that a defensive wall encircled the entire perimeter of the central platform. In general, Terroso's defensive walls consist of two rows of stones, with the intervening space filled by dirt and small rocks (Gomes 2005:129-130). Due to the topography of the site, the southern slope would have provided the easiest access to the central platform (Dinis 1993:32). The southern portion of the central platform's defensive perimeter appears to have undergone successive enhancements to its fortification, as the addition of multiple layers brings the thickness of the wall to a total of about 9 m (Gomes 2005:129-30). On the northern side of the central platform, the defensive wall seems to be less fortified. Presumably, the northern side would have been the easiest to defend, based on the steepness of the northern slope (Gomes 2005; Dinis 1993; Sampaio 2014).

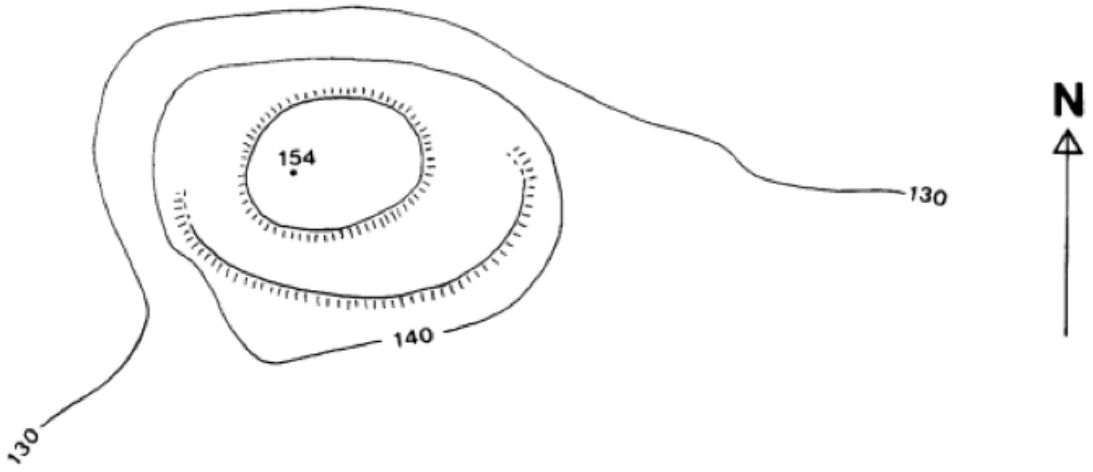


Figure 5: Topographical plan-map of Monte da Cividade. Scale 1: 5,000 (after Dinis 1993).

The central platform of Terroso has often been referred to as the 'acropolis' of the site. This term will be avoided, as it carries irrelevant and potentially misleading connotations. Gomes (2005:129-130) suggests that two further sets of walls would have constituted two larger perimeters, built progressively farther from the central platform and thus at successively lower elevations. The possible third perimeter of walls has not been excavated, while at least the southwestern portion of the second perimeter has been uncovered and recorded. Its construction is similar to the wall of the central platform, except that it is narrower and filled with highly compacted *saibro*. The defensive walls were formed by "large blocks of granite" (grandes blocos de granito) interspersed with smaller stones (Gomes 2005:130). Their foundations often incorporated natural granite outcrops, but they otherwise used stones similar to those found in the upper portions of the walls.

Rocha Peixoto and José Fortes undertook the earliest excavations at Terroso, from 1906 to 1907 (Peixoto 1908). They uncovered most of the buildings that are now visible, focusing their efforts almost exclusively on the enclosed central platform of the site. Gonçalo Cruz provided illustrations, including a rough plan-map that depicts the site as it existed immediately following Peixoto and Fortes' excavations (Figure 6). There are significant discrepancies between the original map and more recent ones. For the most part, this can be attributed to the increased precision and detail of recent maps. However in certain cases, it seems that Cruz faithfully recorded something that simply disappeared in the following decades. For example, his map marks a central feature on the surface of structure T-23 (see Appendix 1 for clarification on the names of structures). This is now absent at the surface level, but central stones were found in the layers beneath. As will be discussed later, other structures exhibit successive central hearths, according to the excavators' interpretations (Gomes 2005:123).

Cruz's map is likely fairly reliable in recording the presence of whole structures or distinct central features, such as intentionally placed stones or hearths. But examination of current maps and existing structures indicates that the original map is clearly unreliable in terms of scale, orientation, and overall precision. It should only be referenced with extreme caution, and with full awareness of its inherent limitations.

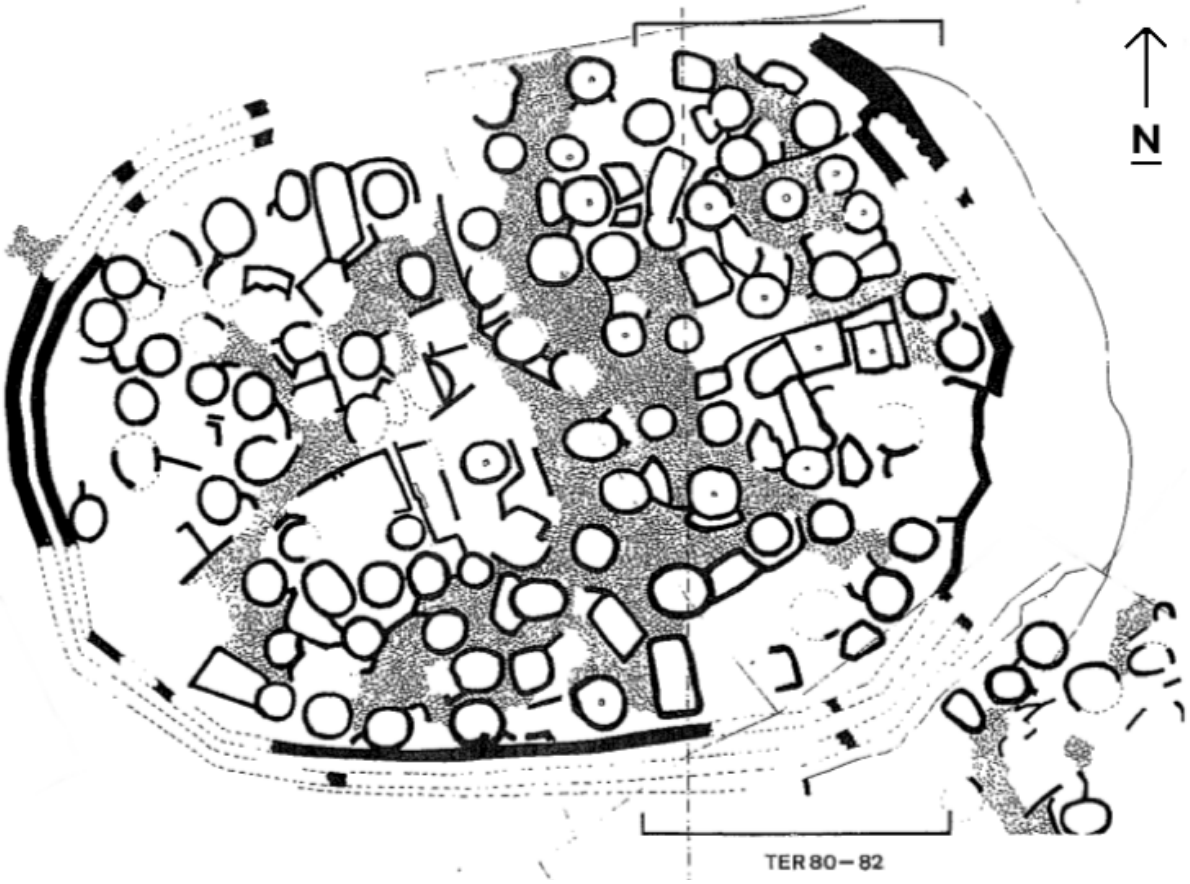


Figure 6: Rough plan-map of Terroso, made by Gonçalo Cruz around 1907 (after Silva 1986).

Several authors have referenced this map, mistakenly treating it as a reliable representation of the site. They have often characterized Terroso as an unorganized settlement, lacking any form of 'urban planning.' For this reason they claim that Terroso is an example of a ‘pre-Roman’ settlement, while ‘organized’ sites such as Sanfins are taken as examples of ‘Romanized’ settlements (e.g. Queiroga 1992:22). As will be seen, this interpretation is inconsistent with available evidence. The current plan-map of the central platform of Terroso clearly reflects premeditated organization of built space, i.e. 'urban planning.' Furthermore, the occupational phase reflected in the plan-map of the site is most likely the latest occupation, dating almost certainly to the Roman Period (Silva 1986:39).

Though research took place at Terroso (e.g. Pinto 1932; Gonçalves et al. 1964), it seems that no major excavations occurred there from the time of Peixoto and Fortes until Armando Coelho Ferreira da Silva's expeditions in the early 1980s (Silva 1981b; 1986). Based on available documents, Silva seems to have focused primarily on the eastern portion of the central platform. He published an updated plan-map for this portion of the site, along with three stratigraphic profiles pertaining to T-1, T-2, and T-23 (see Figures 7 and 8). He opened units in these three structures and several others, recording the stratigraphy and making chronological assessments. He also focused on issues of spatial organization; his theories will be discussed later on. Silva led expeditions of conservation and restoration in 1986, and he undertook a final series of excavations from 1989 to 1992. For the moment, the full extent of Silva's investigations and findings are not available in great detail. It is safe to assume that he excavated more structures and recorded more data than he published.

José Manuel Flores Gomes was involved in the 1980s excavations, and he undertook his own excavations in the early 2000s, afterwards publishing detailed architectural and stratigraphic information on several structures (Gomes 2005). He gives an exhaustive account of the stratigraphy for T-7. For others, such as T-6, he provides meaningful stratigraphic information, though in lesser detail. He seems to have opened a unit in T-24, but he does not recount those findings in much detail. Once again, it is not entirely clear which structures were excavated outside of what is explicitly referenced.

Nevertheless, Gomes provides by far the most detailed and up-to-date monograph on Terroso. His 2005 publication serves as an adequate representation of what is currently known about the site. The following section will draw directly from Gomes and Silva to give a brief account of the evidence that has been uncovered at Terroso, accompanied by a summary of the excavators' interpretations.

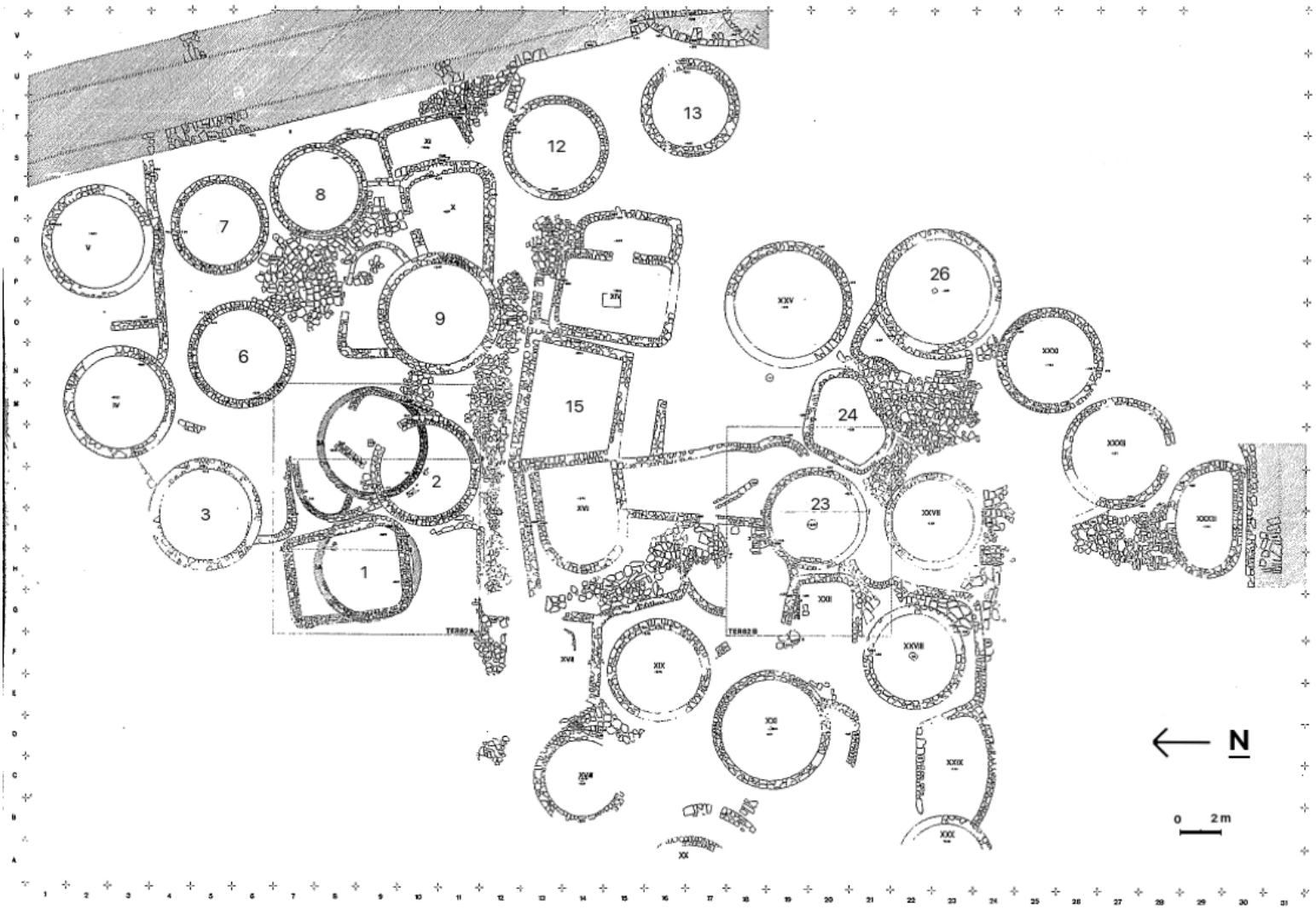


Figure 7: Silva's plan-map, showing the eastern part of Terroso's central platform (after Silva 1986).

The earliest occupation of Terroso was most likely around the Final Bronze Age, based on the presence of ceramics with characteristics attributable to this period. These were found in T-7 and T-8. Gomes (2005:109) states that many successive deposits characterized the stratigraphic profile of T-7, beginning "immediately above the bedrock" (surgindo imediatamente acima da rocha natural). The ceramics in question were uncovered from the oldest layer (Figure 9). Fragments of "thin floors" (pisos finos), probably describing a smooth, compact, prepared surface made of clay or *saibro,* appear in the lower layers. These layers are not associated with any structures (Gomes 2005:115-117). Currently, stratigraphic details and profile-maps are only available for T-1, T-2, T-7, and T-23. The upper excavation levels are presumed to correspond to Phase III of Silva's chronological framework, while structures encountered below a certain point are assigned to Phase II (Gomes 2005:108-131). The floors and ceramics of the lowest levels, as described above, are assigned to Phase I (Gomes 2005:109). Following the interpretations of Gomes (2005:115), evidence obtained from beyond the central platform suggests that the final occupation took place no sooner than the 2nd century C.E.

According to Gomes and Silva, a distinct layer characterized by burning, with much ash and charcoal, separates the Phase II occupations from those of Phase III. They generalize this 'destruction layer' to the entirety of the central platform, although they only excavated a relatively small portion of the site at this depth. Evidence of the destruction layer is explicitly referenced in T-7 and T-23 (Gomes 2005:110-122). According to Roman sources, the campaign of Decimus Junius Brutus from 138 to 136

B.C.E. is the earliest Roman military expedition to affect the northwest of Portugal (Queiroga 1992:96). Silva claims (and Gomes cautiously suggests) that the supposed 'destruction layer' observed in several structures represents a moment of strife during the campaigns of Brutus (Gomes 2005; Silva 1986), marking the arrival of Roman influence. While this theory is plausible, it cannot be accepted with confidence until further excavations provide more substantial evidence for Silva's underlying assumptions:

1. That the destruction layer is indeed generalized to the entire central platform;
2. That the destruction layer dates precisely to 138-136 B.C.E.;
3. That the layers directly below and above the destruction layer date to Phase II and Phase III, respectively.

It is clear that the lower layers represent older occupational phases, but for the moment there is simply not sufficient evidence to substantiate such precise chronological claims. The evidence strongly suggests a fairly uninterrupted series of occupations, at least from the Mid-Late Iron Age through the Early Roman Period, which encompass Phase II through Phase III. The existence of successive floors in the lowest levels of T-7 strongly implies some form of long-term occupation during the Final Bronze Age. This places the first occupation of Terroso quite credibly in Phase I of Silva's chronological framework. Establishing clear continuity between Phase I and Phase II at this site will require more evidence. Gomes (2005:109, 120) states that only a small portion of the site has been excavated at a sufficient depth to uncover the earlier occupational phases.

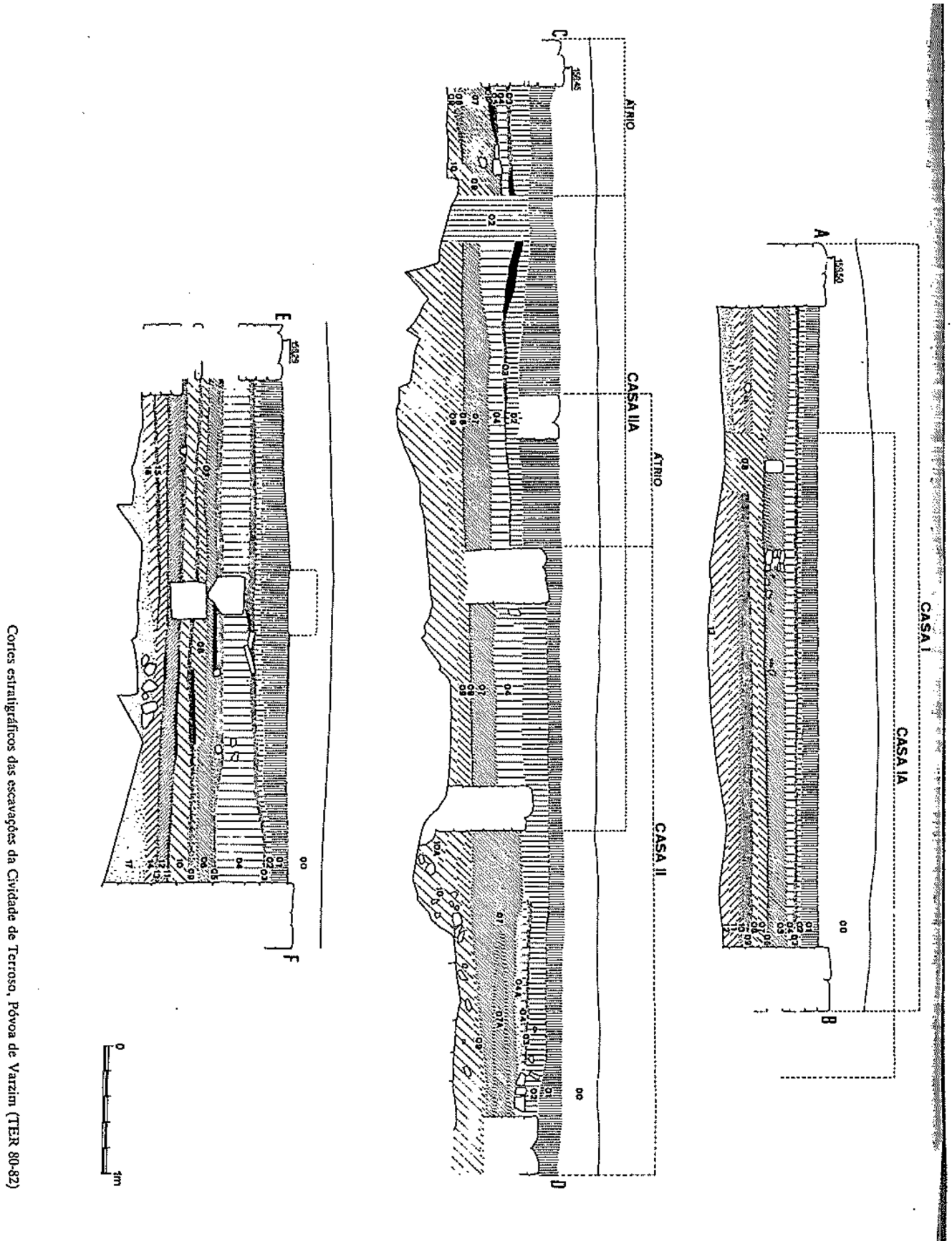


Figure 8: Profile-maps for T-1, T-2, and T-23 (after Silva 1986).

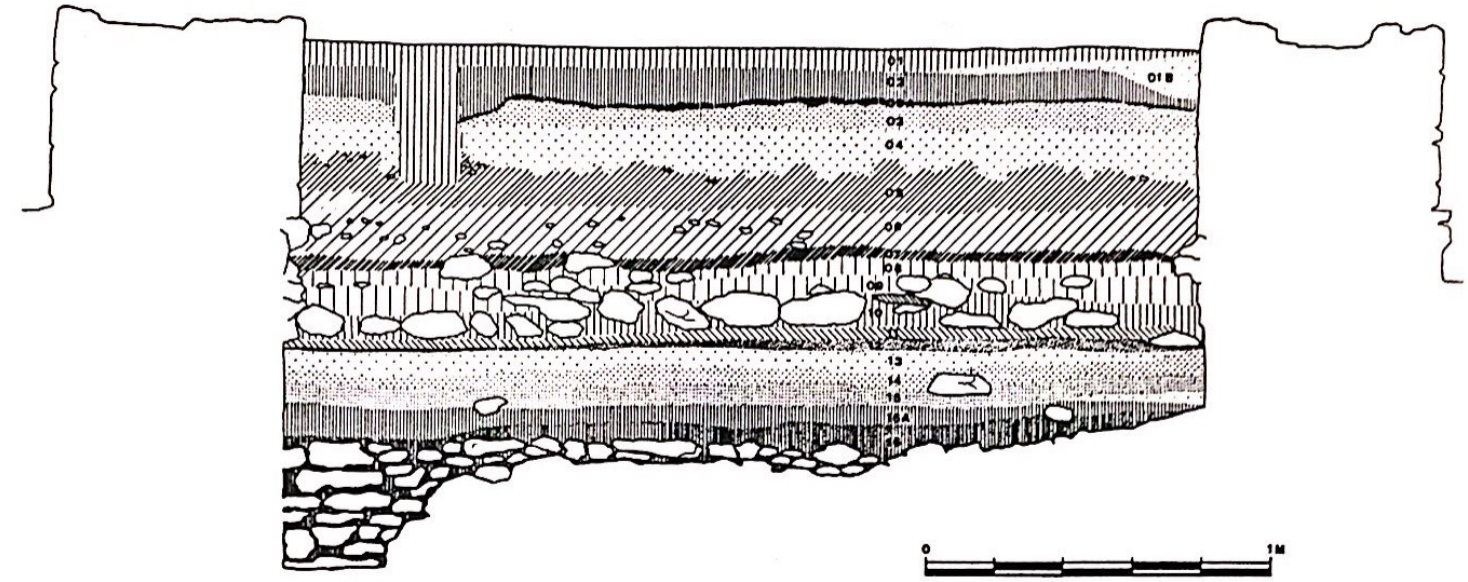


Figure 9: Profile-map for T-7 (after Gomes 2005).

The currently visible settlement plan of the central platform seemingly corresponds to Phase III, and It will be useful to accept this assumption to facilitate discussion. It is almost certain that this settlement plan represents one of the later phases, if not the final occupational phase of the Cividade de Terroso. This follows from simple stratigraphic principles and from the fact that Roman materials are very well attested in the upper levels, including those uncovered during Peixoto's excavations (Peixoto 1908; Pinto 1932). Gomes tentatively identifies a 1 m-deep, 1 m-wide trench in association with a possible third perimeter of defensive walls. He suggests the possibility that this may have encircled Monte de Cividade at an elevation of about 120 m (Gomes 2005:131). The second perimeter is attested, but its full extent is unclear. The perimeter of the central platform is well documented. Gomes (2005:128-129) suggests an entrance to this wall on the southwest, based on surface observations.

Between the first and second defensive perimeters, the foundations of a circular structure were uncovered beneath an "orthogonal Roman construction" (Gomes 2005:114). No further details are provided, but this observation is meaningful. A Roman coin was also found in this area, dating to the 1st century C.E., but the context of the find is not provided in great detail. These observations establish firm but limited chronological boundaries. There is not sufficient evidence from beyond the central platform to substantiate precise claims about the chronology of this area as a whole. Reliable and precise information is likewise unavailable for the western half of the central platform, because Silva and Gomes do not clarify when and where excavations took place outside of the structures explicitly discussed. All of the buildings discussed in their research are found in the eastern portion of the central platform, which is the portion of the site represented in Silva's plan-map. The central platform thus provides ample architectural data, as well as sufficient artifactual and stratigraphic information to establish a meaningful context, but only in this eastern portion. For the purposes of this investigation, evidence from beyond the central platform will be largely disregarded. Similarly, questions of the possible expansion of the site in relation to Roman influence will not be thoroughly considered.

The following section will provide an introduction to the architecture of Terroso, followed by a discussion of the architectural evidence. Based on the available evidence, this account of the architectural data is restricted to the area covered by Silva's plan-map, which roughly corresponds to the eastern part of the central platform of Terroso. All information in the following sections is taken directly from Gomes (2005:108-132).

According to the excavators, Terroso is divided into four sectors by the intersection of two main roads, which run roughly north-south and east-west. The four sectors are further divided into distinct groupings of structures (Figure 10). Each of these is delimited by a boundary of walls, which creates a common space between multiple structures. Often the external face of a structure's wall may serve in tandem with one or more appendant walls to create the boundaries for these spaces. The structures belonging to such a group will usually have their entrances oriented toward this enclosed area, which is almost always paved with stones. In this way, a delimited 'patio,' so to speak, is presumably accessed by all structures of the group. This may have had the effect of creating an 'internal space' that was insulated from the rest of the settlement. Similar groupings have been observed in many castros, and they are often referred to as 'family compounds.' This terminology relies on unfounded assumptions, since too little is known about the social mechanisms of the Castro Culture for the term 'family' to be meaningfully applied.

My investigation will refer to these groupings of structures simply as 'nuclei,' and the stone-paved common area of the nucleus will be referred to as the 'patio.' Gomes identifies around 18 nuclei in the central platform of Terroso, with around four or five in each sector and a variable number of structures per nucleus. For the moment, there are no means by which to evaluate this statement. In cases such as this, the general observations of the excavators will be taken as tentative and approximate, yet meaningful and informative.

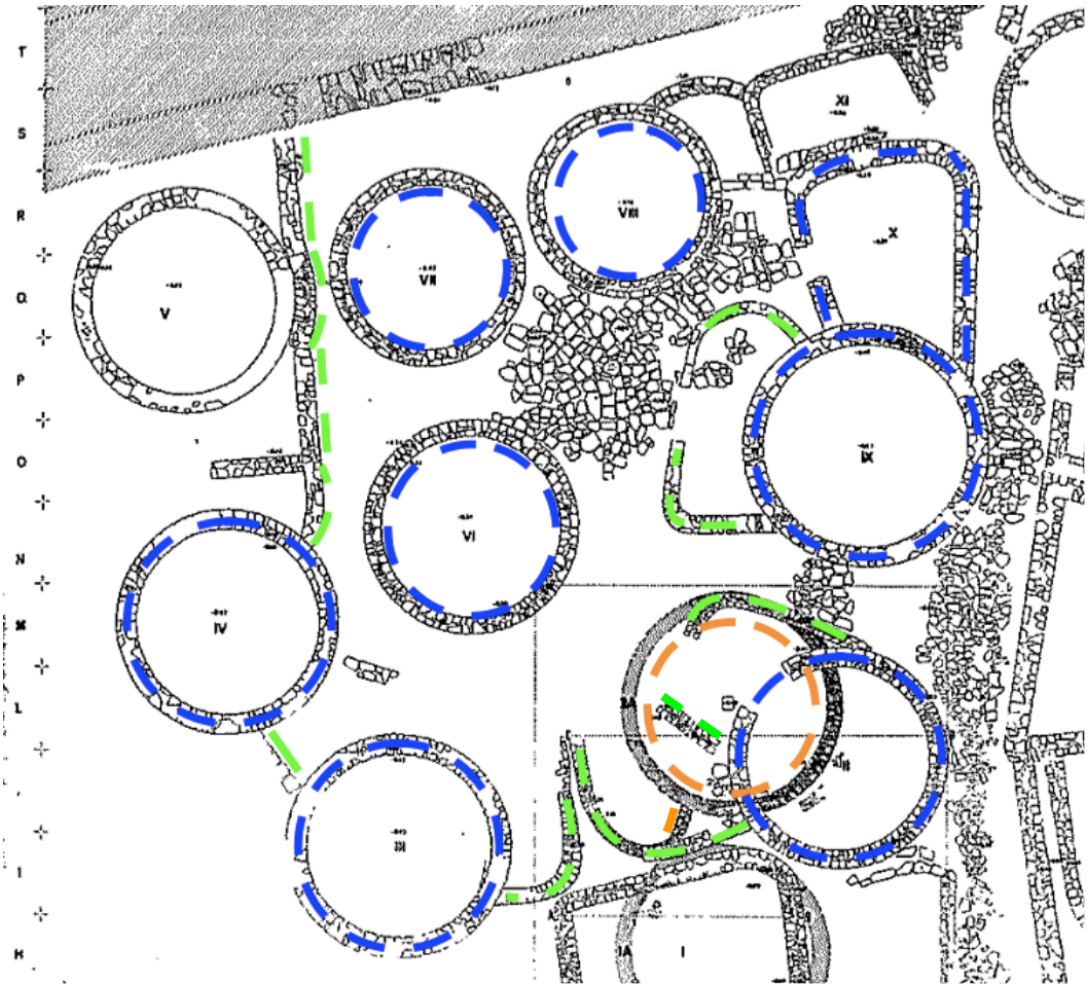


Figure 10: Note the perimeter formed by structures (blue) and appendant walls (green). Also note T-2a (orange), buried beneath T-2 (after Silva 1986).

Again, the settlement plan currently reflected on the surface of Terroso is interpreted as a single occupational phase. It is identified as belonging to Phase III of Silva's chronological framework, likely around the 1st or 2nd century C.E. Silva and Gomes claim that the arrival of Roman influence initiated a period of reorganization of the site, resulting in the currently visible settlement plan. They speculate that many architectural conventions were altered, also implying that the current settlement plan is organized to a greater extent than it would have been prior to Roman contact. For example, Terroso's two major roads are often likened to the Roman practice of

organizing settlements around a *cardo* and *decumanus* (Figure 11). This observation is relevant, especially given the apparent chronology of the currently visible settlement plan. However, while organizing settlements around the intersection of major streets in rough correspondence with the cardinal directions is a Roman practice, it is not necessarily proof of a 'Romanized' settlement. An investigation of the road-building techniques employed in castros during various periods may allow for more meaningful conclusions on this matter. The presence of rectangular structures is interpreted as further evidence of Roman reorganization, which is a common view. The excavators observed differences in the general characterization of the evidence between Phase II and Phase III, namely in terms of construction techniques and encountered artifacts.

Figure 11: View looking east at one of Terroso's two 'major roads'
(photo: Direção-Geral do Património Cultural http://arqueologia.patrimoniocultural.pt).

The theory of Roman reorganization discussed in the previous paragraph is supported to a certain extent by the published evidence, but only a small portion of the site has been excavated at a sufficient depth to reveal the Late Iron Age occupational phases. As will be seen in the following sections, certain structures (T-1a, T-2a) are significantly altered or even fully replaced, while others remain completely unchanged either in location, shape, or dimension (T-6, T-23). According to Gomes (2005:124), at least one structure (T-26) maintained its location and shape but had its dimensions altered.

The following section will thoroughly review the published architectural data available for Terroso. Gomes or Silva have referenced or discussed, to varying degrees, structures T-1, T-2, T-6, T-7, T-8, T-23, T-24, and T-26. Some of these (T-8, T-24, T-26) are only mentioned in passing. Aside from this, the authors provide general observations about the structures they encountered during the excavations.

According to the evidence obtained, the earliest stone structures uncovered at Terroso date to Phase II, which corresponds to the Mid-Late Iron Age (ca. 500-200 B.C.E.). The excavators noted that each of the structures in question lies beneath what they identify as a destruction layer, which is always described as being thick and very distinct, dark in color with a prevalence of ash and burnt material. The stratigraphy is the main factor in the common chronology of these structures, but they also seem to have exhibited a number of general similarities. Gomes (2005:110-121) states that all Phase II structures encountered at Terroso share the following characteristics:

1. They only occur beneath a certain stratigraphic level, as previously described.
2. They are, without exception, circular in plan, with a diameter of 4-5 m.
3. They often exhibit central stones, which are rectangular or cylindrical. These stones are not shaped with tools but may have been intentionally fractured. In certain other cases, a small circle of unworked stones surrounds a central post-hole.
4. They often exhibit clear stratigraphies, with successive layers of thin floors made of clay or *saibro*, separated by habitation levels. As in Phase III, these are often decorated.
5. The foundations are implanted directly on the bedrock. In some cases the bedrock seems to have been slightly worked, with portions having been 'shaved off,' presumably to provide a more level surface. The granite found at Terroso tends to fracture or flake predictably, producing fairly regular breaks (for more information on the geology of this site, see Gomes 2005 and Sampaio 2014). Gomes also speculates that the granite flakes produced by the leveling of the bedrock would have been used for constructing walls and foundations.
6. Stones used in construction are of local granite, 'medium-sized' and not heavily worked. Use of the iron pick to create regularized shapes and surfaces is almost never seen; instead, the fracturing of the granite roughly shaped the stones.

7. The walls are composed of two rows of stones, and the space in between is filled with dirt, clay, *saibro*, and smaller, irregular stones. The stones on the external face of the wall are flatter and more regular than those on the internal face.
8. The walls have a lower thickness than those of the Phase III constructions, measuring from 30-40 cm.

T-1a, T-2a, T-6, and T-23 are the only *named* structures that are firmly identified as having been built during Phase II. Based on the observations listed above, the structures existing beneath the 'destruction layer' at Terroso share characteristics that differentiate them from the later structures, namely in the construction techniques used. This lends credit to the interpretation that the structures below and above the destruction layer reflect cultural distinction. Without radiocarbon dates, it is unclear whether this difference is the result of gradual change of long duration or rapid change of fairly short duration. Artifactual evidence supports the interpretation that these different occupational phases correspond to the Late Iron Age and Early Roman Period, as will be seen below.

Phase II structures were found beneath T-1 and T-2, and they are referred to as T-1a and T-2a. Presumably during the transition from Phase II to Phase III, these structures were rebuilt, or more literally, buried and built over. The profile-maps support this conclusion, quite clearly in the case of T-2. Based on the plan-map, the center of T-2 was placed about 3 m to the southwest of the previous center of T-2a (Figure 10). Its entrance faced northeast, towards what is almost certainly this structure's nucleus. What is seen may thus be described as a repositioning of a structure, such that T-2a was moved backwards when it was rebuilt. The way in which the appendant walls of T-2

seem to intentionally coincide with the previous walls of T-2a supports the notion that this was more an act of repositioning, or perhaps expanding T-2a than replacing it.

T-1 is a rectangular structure with fairly rounded corners that was built over the circular structure T-1a. This seems to constitute a genuine replacement, in which one structure is essentially discarded and a different structure built in its place. Fragments of Punic ceramics datable to the 3rd century B.C.E. were found in level 8, which the profile-map seems to associate with the foundation of T-1a. This places the construction of T-1a in the Late Iron Age, while T-1 is presumably of Roman date. The evidence obtained from T-1 and T-1a perhaps constitutes the most compelling argument in favor of Silva's interpretation of Terroso's chronology. This is because the evidence suggests the replacement of a Late Iron Age circular structure with a Roman Period rectangular structure. However, this phenomenon of 'building replacement' is not explicitly recorded elsewhere on the site. Older structures were certainly encountered, for example beneath T-7 and T-24, as confirmed by photographs (Figure 12). But apart from T-1a and T-2a, Phase II structures are not explicitly discussed or presented. The exceptions to this are structures T-6 and T-23. These are identified as structures that were built during Phase II, but which remained in use, unaltered, well into Phase III.

Silva provides the stratigraphy of T-23, revealing continual occupation from the level of the bedrock foundations to the surface. That is to say, T-23 seems to have been constructed during Phase II and continually inhabited until the likely abandonment of the site during Phase III. In layers 15, 13, 11, and 9 were found four floors of *saibro*, which Gomes (2005:112) describes as thin and whitish. He states that the destruction layer is

very visible in the stratigraphy of T-23 as well as T-7, and it occurs above the levels of the Phase II occupations (Gomes 2005:110-117). The fact that the destruction layer occurs in T-23 supports the hypothesis that this layer is generalized to the entire platform, because T-23 is located at a considerable distance from the nucleus of T-7. Like T-23, structure T-6 also seems to have remained unaltered into Phase III. A profile-map is not published, but Gomes provides some interesting details about this structure. These will be discussed later on, since the information provided for T-6 mostly pertains to its Phase III levels.

Figure 12: View of the interior of T-7 from above. The wall of T-7 frames the bottom of the picture. Part of an unidentified structure, buried beneath T-7, appears on the right (after Gomes 2005).

The Phase III constructions are much better attested, presumably constituting most of what is currently visible at the surface of the site. According to Gomes (2005:113-127), the structures of Phase III share the following characteristics:

1. They only occur above a certain stratigraphic level, as previously described.
2. They exhibit a wider variety of forms, such as square, rectangular, and others that are more difficult to describe (e.g. T-24, which will be discussed very briefly later on).
3. Central stones are frequently encountered within circular structures, but these are well shaped with iron tools and exhibit a wider variety of forms. Gomes observes that in some structures there are successive central stones, which were replaced in correspondence with the laying of new floors. This phenomenon also occurs with hearths, as seen in T-6.
4. They often exhibit floors of *saibro* that are far thicker than those seen in previous phases, sometimes reaching 10 cm. These floors are also very compact.
5. The stones used in construction are still of local granite, but they are considerably larger. They are very often worked with the iron pick, which gives them more regular shapes and even surfaces. They are mostly quadrangular in shape.
6. The walls of structures consist of two rows of stones. The internal fill is much more compact, with a higher concentration of clay and *saibro* in addition to the dirt and small rocks. Again, the stones of the external face are generally flatter and more regular than those of the internal face.
7. The walls are generally thicker than those seen in Phase II, typically reaching 45-60 cm.
8. The use of *tegulae* (singular: *tegula*) as a roofing material is attested, with samples being encountered in multiple contexts. These are thick clay tiles with distinct forms that were specifically manufactured for use in roofs. Apparently,

> roofing materials have not been encountered in previous phases. The universal assumption is that, prior to the introduction of *tegula* and *imbrex*, castro structures were covered exclusively with vegetable materials on wooden frameworks.

In T-6, which was constructed during Phase II, alterations did not take place despite the appearance of Phase III. It is unclear how this relates to the supposed destruction that took place across the site. The stratigraphy of this structure is characterized by a small number of layers, with very few artifacts encountered. The floors are very well made, but they are not as thick in the upper layers as those of nearby structures. Successive hearths were placed at the center of the structure, apparently being continually replaced as new floors were laid. Along the whole internal perimeter of T-6, the floor abruptly ceases to exist about 40 cm from the wall. Gomes (2005:123) provides a satisfactory explanation, speculating that the gap may have accommodated a bench made of perishable materials (Figure 13).

T-6 seems fairly unique, at least compared to the other buildings encountered at Terroso. This is based on the scarcity of artifacts and stratigraphic levels despite the longevity of the structure, the apparent presence of a wooden bench around the internal perimeter, and the peculiar description of its floors. On the stones of the external face of T-6's walls, at the level of the pavement, a thick coating of plaster was encountered (Gomes 2005:123). Its composition is unknown, since laboratory analysis was still underway at the time of Gomes' publication. He suggests that it was made of *saibro*, among other unknown components.

Figure 13: General view of T-6 (after Gomes 2005).

Gomes (2005:123) states that a thin layer of plaster, pink or reddish in color, was encountered on the stones of the internal faces of multiple other Phase III constructions. This leads him to conclude that, at least during Phase III, the internal and/or external walls of certain structures at Terroso may have been fully or partially coated with a colorfully painted plaster (Figure 14).

Figure 14: Detail of colored plaster on the internal wall of an unidentified structure (after Gomes 2005).

Several photographs are available for T-7 (see Figures 15 and 16), in addition to a profile-map (Figure 9) and an exhaustive description of its stratigraphy. Levels 16-13 vary in composition, with no artifacts other than the Final Bronze Age ceramics found in level 16. Gomes (2005:117) also notes successive thin floors in the “deepest levels.”

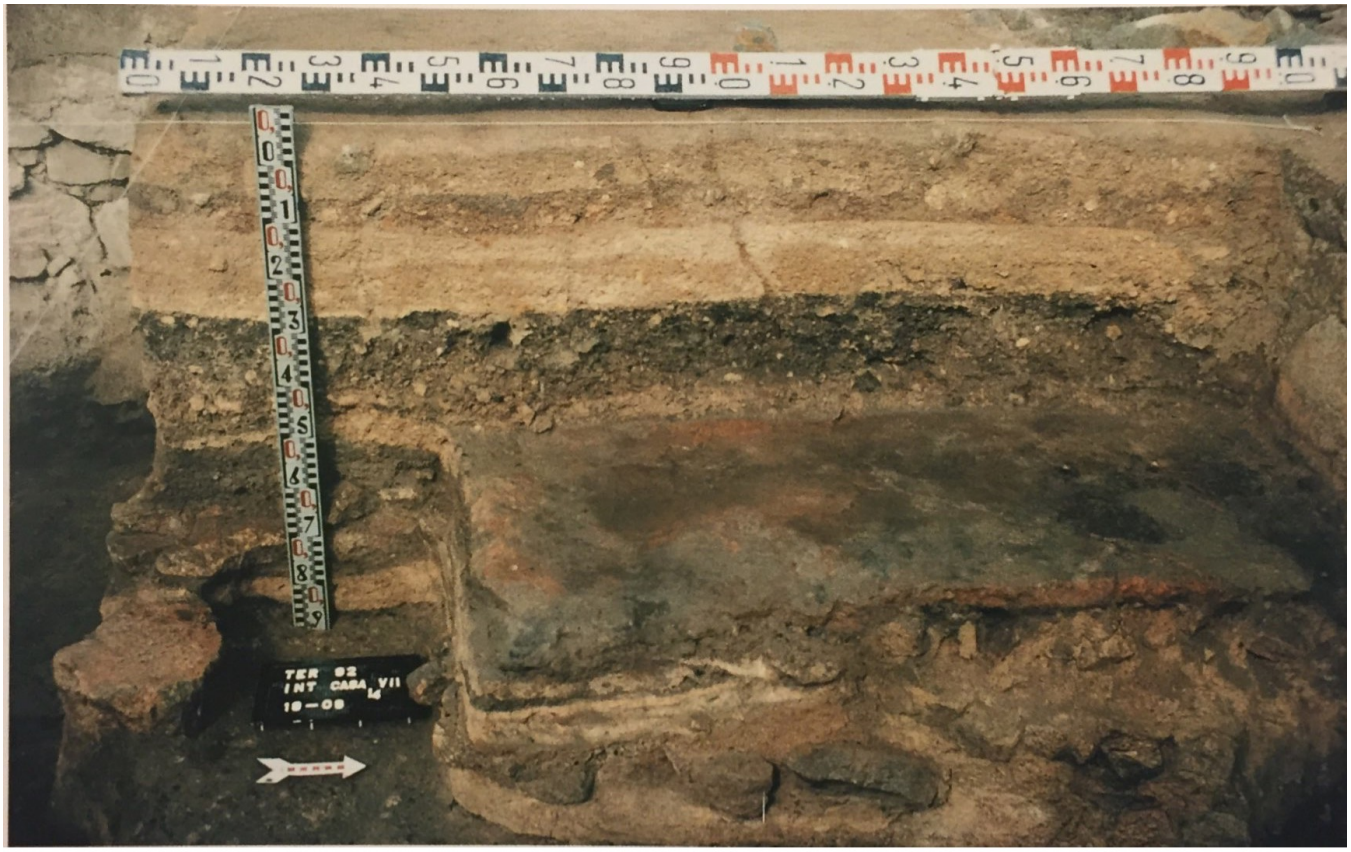


Figure 15: West profile of the interior of T-7 (after Gomes 2005).

Ceramics are found in level 12, which were manually crafted (i.e. without use of a potter's wheel) and heavily micaceous. Level 11 is a layer of *saibro,* which contained some manual ceramics. A "floor of reddish clay," which Gomes (2005:117) interprets as a "hearth," was also found in level 11. All ceramics encountered in levels 10-6 were crafted manually. The soil becomes very dark in level 9, and in level 8 was found a layer of noticeably compacted, "brownish grey" soil, which Gomes (2005:117) states was probably a floor. Level 7, the thick "destruction layer," contains a very high concentration of charcoal and ash, and in the center of the construction were found "some very deteriorated bones and teeth of animals" (Gomes 2005:117). In level 6 was found another "hearth of reddish clay," in the northern part of the structure. In this case, the

positioning of the “hearth” is less problematic, because Gomes (2005:117) identifies level 6 as the first level of occupation of T-7. This places the construction of T-7 in Phase III. In level 5, the first wheel-made ceramics are encountered, which substantiates this chronology. Part of a circular structure, possibly dating to Phase II, was encountered beneath T-7 in its interior (see Figure 12). Gomes does not provide the stratigraphic level at which this older structure was encountered.

Figure 16: General view of T-7 (after Gomes 2005).

T-26 apparently sees a reduction in size from Phase II to Phase III. It also serves as evidence for the presence of vestibules during Phase II at Terroso, since vestiges are apparently visible near the surface (Gomes 2005:124). Gomes does not seem to

have excavated T-26. T-24 was excavated, but no details are provided. One photograph shows an unidentified area within the structure, which reveals a small portion of an older structure buried beneath it. No information is given, but T-24 is noteworthy for its strange shape.

Gomes (2005:124) states that the vestibules of the Phase III constructions are often not paved with stones, instead covered with a floor of clay that is “more fragile” than those found in the interiors of constructions. What is precisely meant by “fragile” is unclear. Even more curiously, certain portions of the patios are sometimes covered with a floor of compact *saibro* rather than the usual pavement stones. Gomes interprets this to mean that many of the vestibules, and certain portions of some patios, would have been covered with roofs to protect them from rain. This is because, unlike the pavement stones, prepared floors would have been damaged by rainwater. In certain unidentified portions of the site, presumably at the surface level, Gomes (2005:122) sees vestiges of what he interprets as small channels for draining or diverting rainwater. Some of the structures appear to be isolated, without a nucleus, and the meaning of this phenomenon is unclear. Despite common claims, the meaning of the nuclei themselves is only understood at a purely functional level. That is to say, all that is currently known is that nuclei are organizational mechanisms used to create distinct common spaces between associated structures.

This final section will begin by discussing the major points and problems that have arisen from the evidence considered in this chapter. It will close with a very brief summary, which will emphasize those aspects of the evidence that should be kept in mind for eventual inter-site comparison.

The chronology of Terroso seems clear, and in some ways it is. For example, certain archaeological finds have placed fairly fixed limits on the earliest and latest dates of occupation. Yet a closer look at the evidence reveals that, for the most part, the chronology of any given structure is far more complex and obscure. This obstructs attempts at spatial analysis, because any given portion of the plan-map may be an anachronism relative to its surroundings. The exceptions to this are those cases in which explicit stratigraphic information is provided in tandem with datable artifacts, but this only occurs in a small number of individual structures. It is worth noting that, while a large portion of this chapter is dedicated to chronology, this is necessary due to the nature of the evidence at Terroso. The chronology of other sites may be far less problematic, or in certain cases it may be so unclear as to make prolonged discussion fruitless.

On this subject, T-6 and T-23 make a very clear point: it is entirely possible for a structure to be built during Phase II and still appear on the surface of the site, alongside structures that were built during Phase III. Because T-6 and T-23 were presumably in use during Phase III, it is appropriate to treat them as part of the Phase III settlement plan. But distinguishing between the older structures (e.g. T-6) and the newer structures (e.g. T-7) is essential when attempting to speculate about change through time in

architectural practices. For example, the continued preservation and maintenance of older structures during Phase III stands in stark contrast to the image of 'total urban reorganization' that is assumed to have taken place following Roman contact. If T-23 was built during the Late Iron Age and preserved until the abandonment of the site, it must have required, at the *very* least, two centuries of intentional and fairly consistent maintenance. The fact that many older structures were replaced does not remove from the fact that others were intentionally and laboriously preserved.

The authors do not explicitly define the extent of their excavations. In most cases, they seem to have opened units directly within structures but not outside of them. They also remain fairly ambiguous about certain features of the evidence, such as the stratigraphy of T-6 and how it may relate to the supposed destruction of the site. They also do not discuss the precise stratigraphic location of the partial, unidentified stone structure encountered beneath T-7, and the chronology of T-7 as a whole is somewhat ambiguous. It is continually implied that this structure corresponds to Phase III. Evidence of long-term habitation was encountered in the lower levels, beneath the destruction layer, but the authors do not elaborate much on the implications of this finding. They assume that the unidentified stone structure beneath T-7 belongs to Phase II, and that T-7 belongs to Phase III. Further clarity is not provided about the transition between these phases, nor about the relevance in terms of continuity of the floors and hearths found in the lower layers of T-7.

Added to this issue is the fact that radiocarbon dates do not seem to have been published by either Silva or Gomes, and therefore they most likely have not been

published at all. The excavations of Peixoto and Fortes in the early 1900s also inhibit clarity of interpretation, because their methodology is entirely unknown. The clear goal was to only uncover the structures and paving stones, and they do not seem to have excavated any deeper than this. It is impossible to know the stratigraphy of the levels they removed, and it is likewise impossible to chronologically differentiate between any of the structures they uncovered except by excavating at a significant depth beneath the surface. This adds to the issues of chronology, because no more than a handful of structures seem to have been excavated at such a depth.

While the 'Roman reorganization' of Terroso is plausible, it cannot be accepted confidently without further evidence of the older occupations. It is impossible to determine the extent of reorganization that took place without an understanding of the previous organization of the settlement. Essentially nothing is known about the spatial organization of Terroso during the Late Iron Age. Further mapping and excavation across a wider portion of the central platform may ameliorate this situation, as will further publication of stratigraphic data and profile-maps for individual structures, and the publication of radiocarbon dates.

Considering all of this, the evidence available for Terroso exemplifies some of the most common challenges in castro archaeology. There is much material to be analyzed, but it is very difficult to make meaningful connections without overlooking certain details or ignoring various gaps in the evidence. The most effective course of action is to investigate with an uncompromisingly rigorous methodology, and then to relate what has been encountered as precisely and exhaustively as possible. Meaningful

connections must then be made conservatively, in full recognition of the incomplete nature of the evidence at hand.

As for the evidence encountered, it mostly aligns with common expectations. Circular forms are the most prevalent, with ellipses and rectangles being far less common but still somewhat frequent. Structures are usually organized into nuclei, and the architecture as a whole exhibits no discernible evidence of social hierarchy. There is heavy investment in fortification, walls are two-faced, local granite is used, central stones are common, floors of compacted *saibro* or clay are frequently encountered, patios and roads are paved with stones, and vestibules are common but not universal. It will be shown that these are all common trends, but Terroso does present several interesting peculiarities.

As will be shown later on, the use of colored plaster has been recorded at other sites. Still, this is far from common. The many peculiarities of T-6 have been discussed in detail, and these should all be kept in mind. T-7 is important because of the details provided about its stratigraphy. The presence of animal remains in this structure is very noteworthy; in this region bones are a scarce category of evidence. Unfortunately, for the moment this finding has no clear implications. The fact that central stones are common, but apparently not universal, implies that they may have been more of a tradition than a necessity. That is to say, central support-posts must not have been necessary for the integrity of the roofs. Otherwise, central hearths would not exist, and the presence of either a central stone or a central post-hole would be universal. The notion that central hearths can coexist with central support-posts in the same structure

is simply inconceivable. The presence of floors, rather than paving stones, in many of the vestibules and in certain portions of the patios also has implications in terms of roofing, due to the factor of rain. Discussions of roof construction will play an important role in this investigation, but the evidence considered thus far does not warrant further discussion of the matter. Construction techniques, namely in the working of stones and the building of walls, are another important consideration. The use of bedrock for the foundation of structures should be noted, as this practice will be seen elsewhere.

In general, this chapter tentatively accepts the interpretations of the excavators. Rather than proposing new interpretations, it has provided a thorough account of the available evidence and facilitated a productive skepticism of prevailing theories. As should now be clear, most of the problems that arise from the evidence at Terroso are ultimately rooted in the need for further research and publication.

The Citânia de Santa Luzia, or Cidade Velha ("Old City") de Santa Luzia, is a castro site located in the district, county, and Municipality of Viana do Castelo. It sits atop Monte de Santa Luzia at an elevation of about 220 m, reaching 226 m at its highest point (Carvalho 2008:167; Figure 17). The full extent of the original settlement is unknown, due primarily to the construction of the Pousada de Viana do Castelo, which began in 1900. Also known as the Hotel of Santa Luzia, it was placed directly atop the monte. The hotel, swimming pool, and access roads destroyed much of the archaeological site, leaving only its northeastern portion intact. This is the portion that remains today.

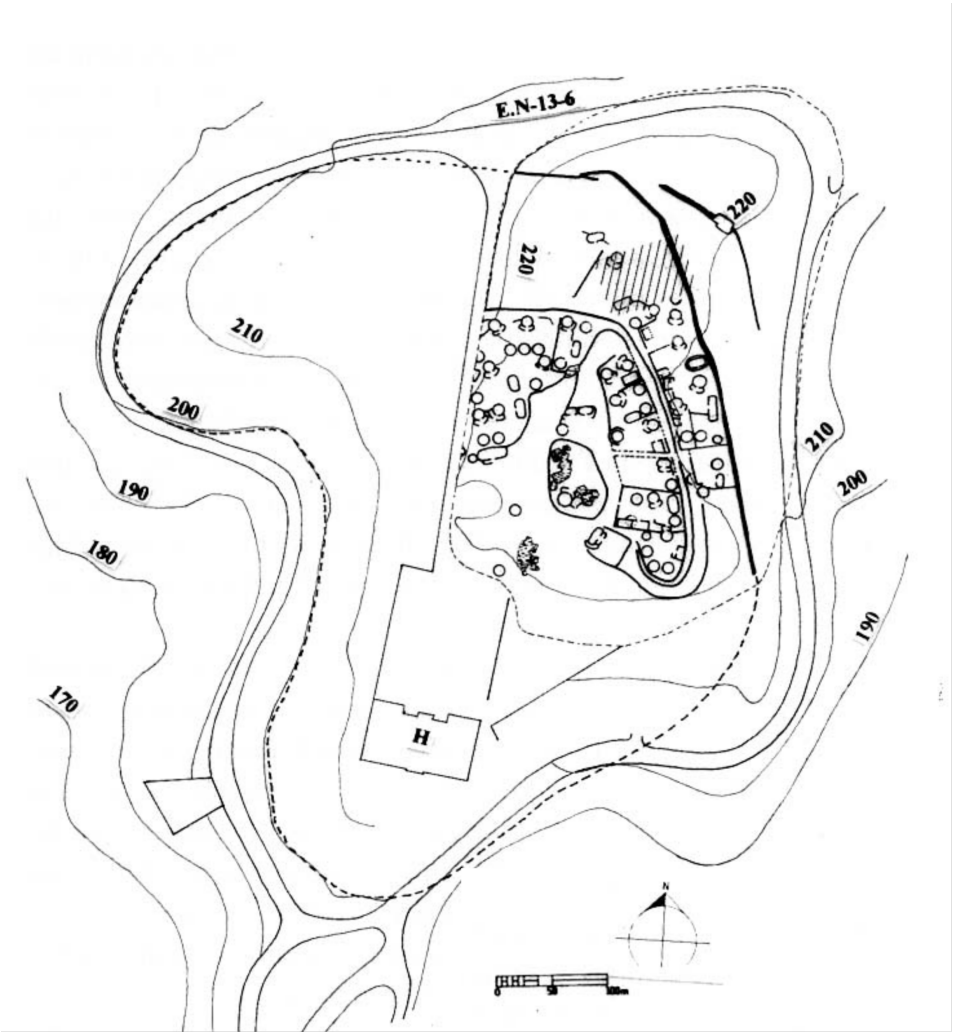


Figure 17: Topographical plan-map of Santa Luzia, with hotel (H) and roads (after Almeida 2007).

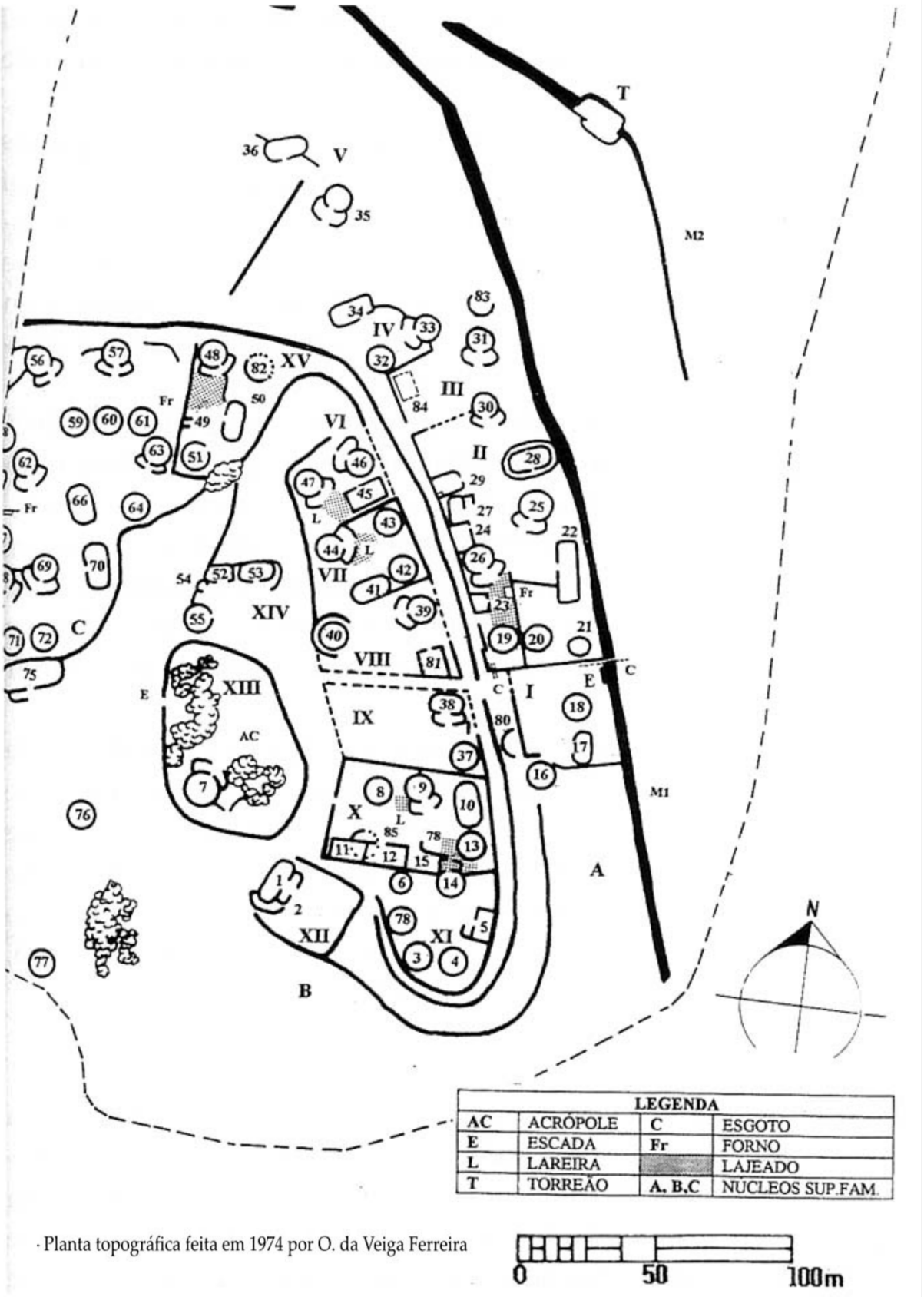


Figure 18: Ferreira's plan-map of Santa Luzia (after Almeida 2007).

A large, walled enclosure occupies the highest point of Santa Luzia (see Figure 18: AC). This is often referred to as the 'acropolis,' owing to its size, elevation, and apparent centrality. Again this terminology is problematic, and this area will instead be referred to as the 'grand enclosure' (or, in Portuguese, *o recinto grande*). The grand enclosure will be discussed in detail later on.

According to the earliest accounts, Santa Luzia had three perimeters of defensive walls (Oliveira and Viana 1954:42; Vasconcelos 1903:17). These were placed at successively greater distances from the center of the site, presumably enclosing a series of inhabited areas between each defensive wall. Most of the uncovered structures were found within the first defensive perimeter (see Figure 18: M1). The area within the first defensive perimeter will be referred to as the 'central platform.' While structures have been encountered beyond the central platform, evidence of these findings is no longer available (Oliveira & Viana 1954:47; Vasconcelos 1903:18). The second defensive perimeter is clearly attested, though its remains are more partial (see Figure 18: M2). The third defensive perimeter is often referenced, but its location does not seem to have been recorded. Assuming it did exist, it would have been completely destroyed by the modern constructions. The excavated portion of the site essentially consists of the central platform and the small area between the first and second defensive perimeters, covering a very approximate surface area of about 4 ha (Currás 2014:765, 769; Viana 1955:77).

Abel Viana (1955:66) suggests that the first defensive wall would have originally had a perimeter of 960 m, with the hotel and roads having destroyed most of the wall on

its south and west sides. The surviving wall retains about 200 m on the east and 80 m on the north. Viana's estimate for the original extent of the first defensive perimeter seems based entirely on the 1880 plan-map, and should therefore be taken as tentative and very approximate (Figure 19). The second and third defensive perimeters are not represented in the 1880 plan-map; their original extent is unknown.

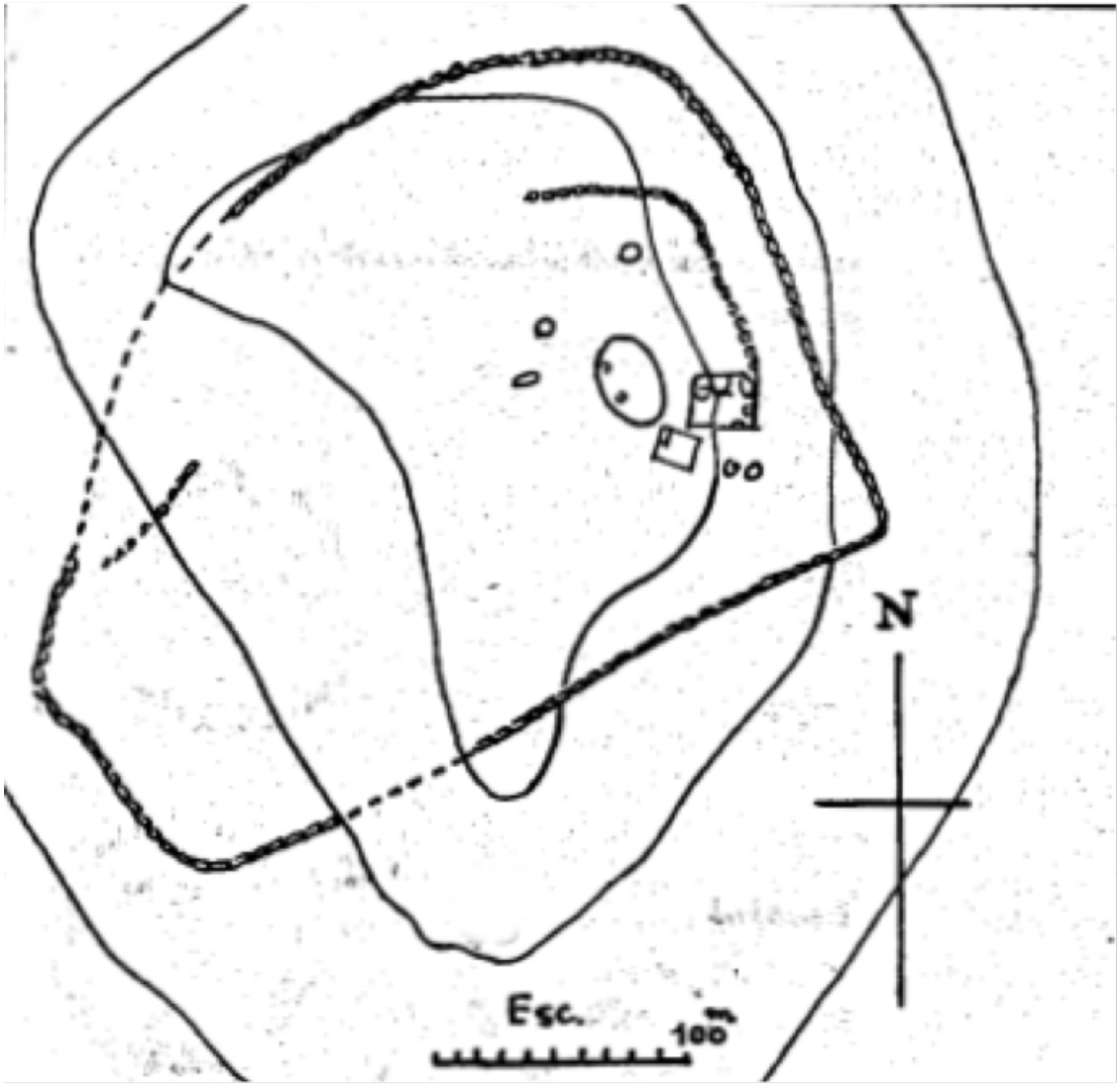


Figure 19: Rough plan-map of Santa Luzia published by José Caldas in 1880, before modern constructions destroyed most of the archaeological site (after Oliveira and Viana 1954).

The central platform is divided by a series of walls, presumably to organize the inhabited space and/or to minimize erosion by retaining soil. This interpretation is supported by the characteristics of these walls, namely that they tend to be about 0.5 m in thickness, which is similar to the thickness of the site's structural walls and much thinner than any of the defensive walls (Viana 1955:68).

Some of these delimiting walls, as well as many of the structures, exhibit a helicoidal pattern in the laying of their stones. The term 'helicoidal,' which normally refers to spirals, has a very specific and fairly unintuitive meaning in the context of castro archaeology. It basically refers to the laying of stones in oblique courses, but the aesthetic effect created by this technique is far more difficult to describe than it is to visually recognize (see Figures 20 and 21). In every instance of the helicoidal pattern, there is an extreme level of precision in the working and positioning of the stones. The result is a very flat surface created by an almost seamless interlocking of well-shaped granite stone. The technique creates a rather intriguing visual effect, perhaps due to the somewhat unpredictable directionality of the stone courses. Based on photographs, it seems that helicoidal patterns are only used on the external faces of structures, while their internal faces employ smaller, more irregular stones. The delimiting wall that encloses nucleus X reflects this practice as well, with only its external face exhibiting the helicoidal pattern (Figure 22). Other delimiting walls could have been constructed with a helicoidal pattern on both faces, but currently available photographs provide no further insight on the matter.

Figure 20: View of Lz-8. Note the elevated doorsill, the central stone, and the helicoidal pattern on its external face (both photos: Direção-Geral do Património Cultural http://www.monumentos.pt/).

Figure 21: View of Lz-9. Note the helicoidal pattern and the vestibule. In the background of both photos, note the unimpressive internal face of the delimiting wall that surrounds nucleus X.

Figure 22: View of the delimiting wall that surrounds nucleus X, showing its helicoidal external face. In the background (top left), another view of Lz-9 (photo: see Figure 20).

As seen in Ferreira's plan-map, which Almeida provides (Figure 18), delimiting walls separate the central platform into multiple 'sectors' (marked with letters A, B, and C), which are further divided into nuclei (marked with numerals I — XV). A very prominent boundary is formed by a set of two parallel walls that run roughly northwest to southeast, framing what has been identified as a street or footpath. This identification is supported by the observation that it was, at one point, partially paved with stones (see Figure 32: number 3 and its description). The walls that frame this pathway run parallel to the first defensive perimeter before curving at each end to enclose a large area, forming sectors B and C. Structures are also found in sector A, which is the space between the path's eastern wall and the first defensive perimeter. The northwestern

portion of the central platform was either sparsely inhabited or scarcely excavated, with only two visible structures: Lz-35 and Lz-36. The same is true for the southwestern portion of the central platform, which only contains Lz-76 and Lz-77. The foundations of a single circular structure (Lz-7) exist within the grand enclosure, accompanied by vestiges of what seem to be appendant walls (Oliveira and Viana 1954:45-46). The site contains upwards of 80 identified structures, in addition to its defensive constructions and delimiting walls. Apparently every wall, whether structural, delimiting, or defensive, was constructed with two rows of stones (see 'double-wall' in Appendix 1). Details are not provided by any authors about the filling of the space between these rows, except for the defensive walls.

The currently visible settlement plan most likely dates to the Roman Period, based on artifacts such as Roman coins and inscriptions uncovered during early excavations (Oliveira and Viana 1954:48; Vasconcelos 1903:20). According to common interpretations, this chronology is also supported by the presence of rectangular forms. Indigenous practices seem well attested, and pre-Roman artifacts have been encountered (Vasconcelos 1903). This site may have been significantly developed by the time of initial Roman contact, but architectural remains from previous occupational phases are not currently available. Accordingly, it will be most useful to avoid in-depth chronological discussions. It will be assumed that the settlement plan represents a single occupational phase, dating to no earlier than Silva's Phase IIIA, which corresponds to the Early Roman Period.

In 1876, Joaquim Possidónio Narciso da Silva, as first president of the Associação dos Arquitectos Civis e dos Arqueólogos Portugueses, led the earliest excavations at Citânia de Santa Luzia (Oliveira and Viana 1954:48). Only a small portion of the site was uncovered at this time, including the grand enclosure and a handful of nearby structures. Still, this very early work generated significant interest in the site and led to the publication of the only plan-map of Santa Luzia from before the construction of the Hotel of Santa Luzia. This early map, published by José Caldas in 1880, provides a meaningful impression of the original extent of the first defensive perimeter (Figure 19). Around the turn of the century, Luís de Figueiredo da Guerra undertook some minor investigations at Santa Luzia (Guerra 1900a; 1900b).

Albano Bellino led the next expedition, which began in 1902. His excavations were quite thorough, uncovering most of the structures visible today (Oliveira and Viana 1954:49). The state of preservation of the architecture was excellent at this time, as demonstrated by the photographs and written descriptions that José Leite de Vasconcelos published in 1903. In 1910, Félix Alves Pereira visited the site as part of his architectural investigations, partially reconstructing two unidentified circular structures in the central platform (Oliveira & Viana 1954:42).

Tomás Simões Viana began campaigns of cleaning and excavation in 1930, as director of the Direcção Geral dos Edifícios e Monumentos Nacionais. His findings have been incorporated into later publications (Oliveira & Viana 1954; Viana 1955:62). Abel Viana does not seem to have excavated, but he visited the site in the 1950s and studied the architecture very thoroughly. Octávio da Veiga Ferreira undertook the final series of

major excavations, from 1973 to 1976. From this work, Ferreira produced an updated plan-map, which provides a detailed representation of the site's spatial organization. Expeditions of cleaning, restoration, and general maintenance have taken place fairly continuously since the 1980s, supported by the Instituto Português do Património Arquitectónico. From that time, some smaller-scale excavations have also taken place.

Carlos Alberto Brochado de Almeida undertook the most recent excavation during the 1990s, opening a handful of units in and around the site's structures and walls. This led him to publish what seems to be the only available stratigraphic information for this site, in addition to some new perspectives and observations (Almeida 2007). On a final note, the plan-map produced by Abel Viana records certain features that are not seen in later maps (Figure 23). Viana's plan-map will therefore be referenced occasionally, but it must be noted that this plan-map is clearly very problematic in terms of scale and overall precision. It also uses a different system of labeling than the later maps. It should not be referenced as a general guide to the site, but it is a valuable source of information in specific circumstances.

The following sections will elaborate on the architectural information that is currently available from the central platform of Santa Luzia. This will begin with an overview of the architecture, which will be followed by a discussion of the evidence.

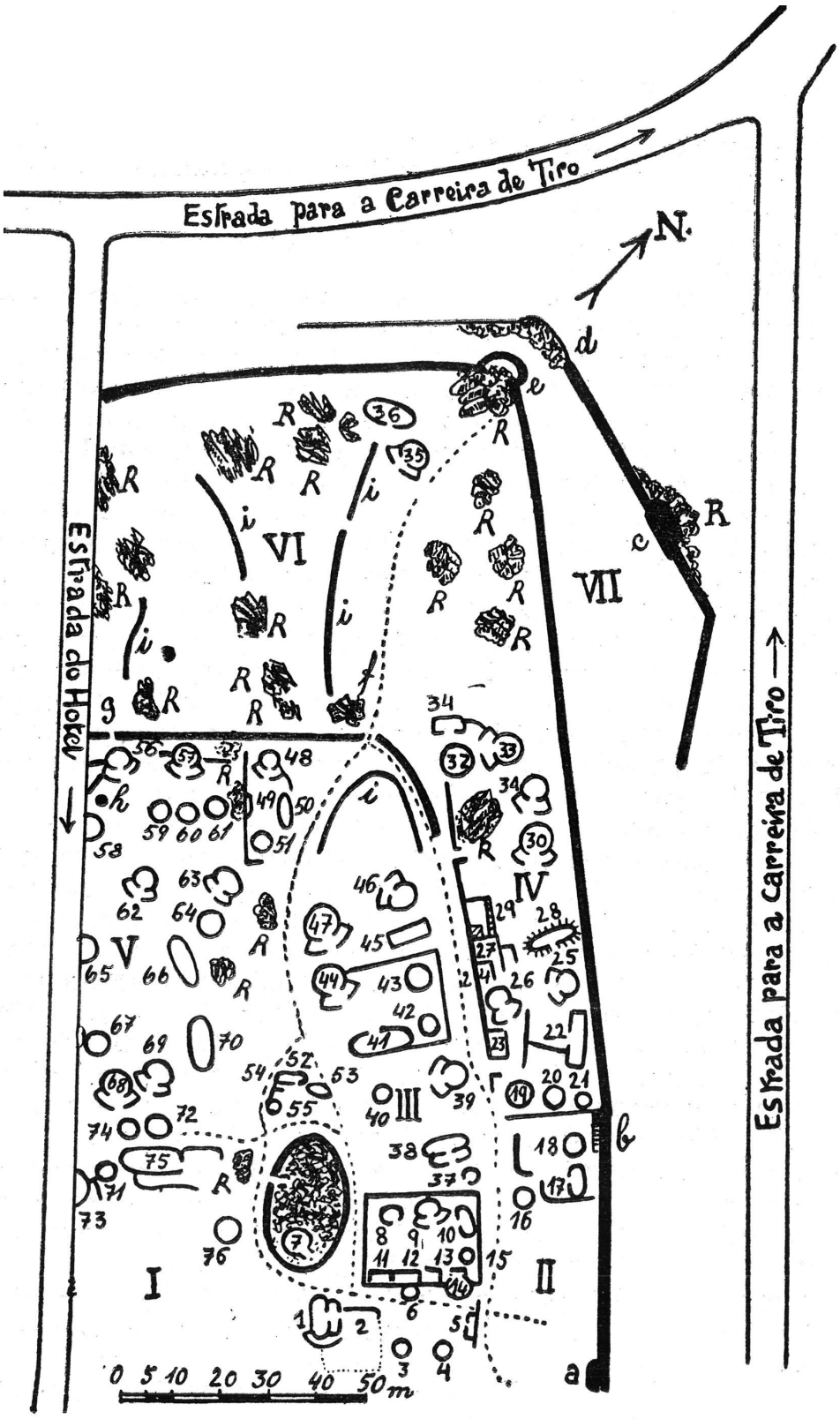


Fig. 1.—Plano general de Santa Luzia.

Figure 23: Abel Viana's plan-map of Santa Luzia (after Viana 1955).

Again, much of the architecture at Santa Luzia seems to have been exceptionally well preserved in the early 1900s. Due to a number of factors, the remains have deteriorated considerably since then. Fortunately, after visiting the site in 1902, José Leite de Vasconcelos published some meaningful observations about the architecture. This section will relate his general observations, as well as those provided by other authors. These will be combined with my own interpretations of available photographs and plan-maps to provide a general characterization of the architectural evidence.

The original doorsills (flat thresholds formed by well-shaped stones) were preserved in many structures. Vasconcelos (1903:18) notes that the doorsills were not always placed at ground level (as portas de entrada nem sempre começavam no chão). In some cases, the difference in height was such that access would have required use of a ladder or staircase.

Abel Viana (1955:82) assumes that only the circular structures without vestibules would have had their thresholds above ground level, because this phenomenon was not encountered in any other type of structure. Presumably, he thinks that the wall beneath the threshold would have been preserved to the height of the doorsill in at least one of these other types of structures if any of their doorsills had indeed been elevated. While quite plausible, this theory cannot be accepted with confidence due to the nature of the evidence. But his observations do very likely indicate, at least, that elevated doorsills occurred more frequently in the circular structures that lacked vestibules than in any other type of structure.

According to Abel Viana (1955:72), the structures at Santa Luzia most often have their entrances oriented between southwest and southeast, which coincides with the general slope of the terrain. This probably protected entrances from the flow of rainwater. But following this interpretation, certain structures would have directly faced the flow of the rainwater, and it follows from this that rain must not have been the only consideration. Viana lists the orientations of the structures whose entrances are clearly visible in his plan-map. An updated version of this list is provided below, adjusting for instances where Viana's plan-map clearly disagrees with Ferreira's.

ORIENTATION TABLE

N:	1	Lz-14
NNE:	1	Lz-7
NE:	1	Lz-51
ENE:	5	Lz-23, Lz-24, Lz-27, Lz-44, Lz-55
E:	0	
ESE:	1	Lz-1
SE:	8	Lz-8, Lz-9, Lz-26, Lz-28, Lz-38, Lz-47, Lz-56, Lz-68
SSE:	5	Lz-30, Lz-48, Lz-53, Lz-57, Lz-75
S:	5	Lz-31, Lz-34, Lz-36, Lz-52, Lz-62
SSW:	4	Lz-25, Lz-35, Lz-63, Lz-69
SW:	2	Lz-10, Lz-37
WSW:	4	Lz-22, Lz-33, Lz-39, Lz-70
W:	3	Lz-5, Lz-17, Lz-50
WNW:	1	Lz-46
NW:	2	Lz-13, Lz-41
NNW:	1	Lz-45

Entrances oriented between ESE and WSW (inclusive): 29
Entrances oriented between ENE and WNW (inclusive): 12
Entrances oriented directly W: 3
Entrances oriented directly E: 0

Entrances oriented between N and W (inclusive): 8
Entrances oriented between N and E (inclusive): 8
Entrances oriented between S and W (inclusive): 17
Entrances oriented between S and E (inclusive): 19

Figure 24: An account of the orientations of doors for structures whose entrances are clearly indicated via plan-map (adapted from Viana 1955)

Based on the 44 structures considered, there is no significant difference from east to west, but there is a strong bias for southern-facing entrances. Thus topography seems to have been an important factor, assuming that Viana's statement about the general slope of the site is reliable. Aside from this, orientation seems largely determined by the location of a structure within its nucleus, as entrances tend to face patios. Viana emphasizes a need for protection against prevailing winds, and he suggests that this was a major consideration in the orientation of entrances. This is worth considering, but solid walls and doors should have provided more than enough protection from wind.

Vasconcelos (1903:18) observed that the interior surface of certain structures was *argamassada*, probably meaning that floors of *argamassa* or *saibro* were visible inside the structures. He states that stones were frequently fixed in the ground near the center of the circular structures, and he notes that most of these were too small to have served as anything other than bases for central posts. He also mentions that the stones used in the walls of structures were *facetadas de um lado*, which basically means "worked on one side" (Vasconcelos 1903:18). Presumably, this refers to the practice of constructing the internal face of structures with smaller, less-worked stones, while the stones of the external face would have been flatter, larger, and more regular.

Abel Viana (1955:80) states that the vast majority of structural walls had a thickness between 0.40 m and 0.50 m, with a minimum of 0.35 m and a maximum of 0.55 m. He found no correlation between the size of structures and the thickness of their

walls. Viana (1955:80) also observes that structures were occasionally set on natural granite outcrops, which were slightly worked to provide a level surface.

Vasconcelos (1903:18) describes helicoidal patterns in the structures as well as in the *muralhas*, implying that this phenomenon was seen quite frequently. In this case it is not clear whether the term *muralha* refers to the defensive walls or the delimiting walls. Based on photographs, helicoidal patterns are confirmed in many structures and some delimiting walls, but not in the defensive walls.

Some of Santa Luzia's defensive constructions are remarkably well preserved. The defensive walls are made of two rows of stones, with dirt and rocks filling the space in between (Viana 1955:68). The authors do not provide descriptions of the construction stones used in the defensive walls. Based on photographs, the stones used in constructing the defensive walls vary considerably in both shape and size. It seems that medium and large stones, fairly regular and thus presumably worked, were the most frequent. These were interspersed with smaller, more irregular stones, presumably to 'fill in the gaps.' This technique is also seen in photographs of the grand enclosure's wall (see Figure 33: number 11). Almeida (2007:52) describes a vaguely similar phenomenon in Lz-7, whose walls exhibited a distinct combination of worked and unworked stones. Based on early photographs, the construction stones of the second defensive perimeter seem to exhibit a more consistent shape and size (see Figure 33: numbers 7 and 9). Again, the use of helicoidal patterns has not been observed in any of the defensive walls.

A turret is preserved in the second defensive perimeter, embedded directly in the wall (see Figure 18: T). Viana's illustration (Figure 25) offers the only available description of this turret, which is otherwise known only through a handful of old photographs. Abel Viana also identifies a "semi-elliptical reinforcement" placed against the internal face of the first defensive perimeter located at its southeastern point (see Figure 23: a). He interprets this as another turret (Viana 1955:66). This construction was not photographed or illustrated, and neither Ferreira nor Almeida observed its presence. Thus for the moment very little is known about either of the 'turrets' at this site, but at least one has been recorded and remains intact. This turret presumably played a role in the circulation of 'soldiers' atop the wall; for the moment little more can be said.

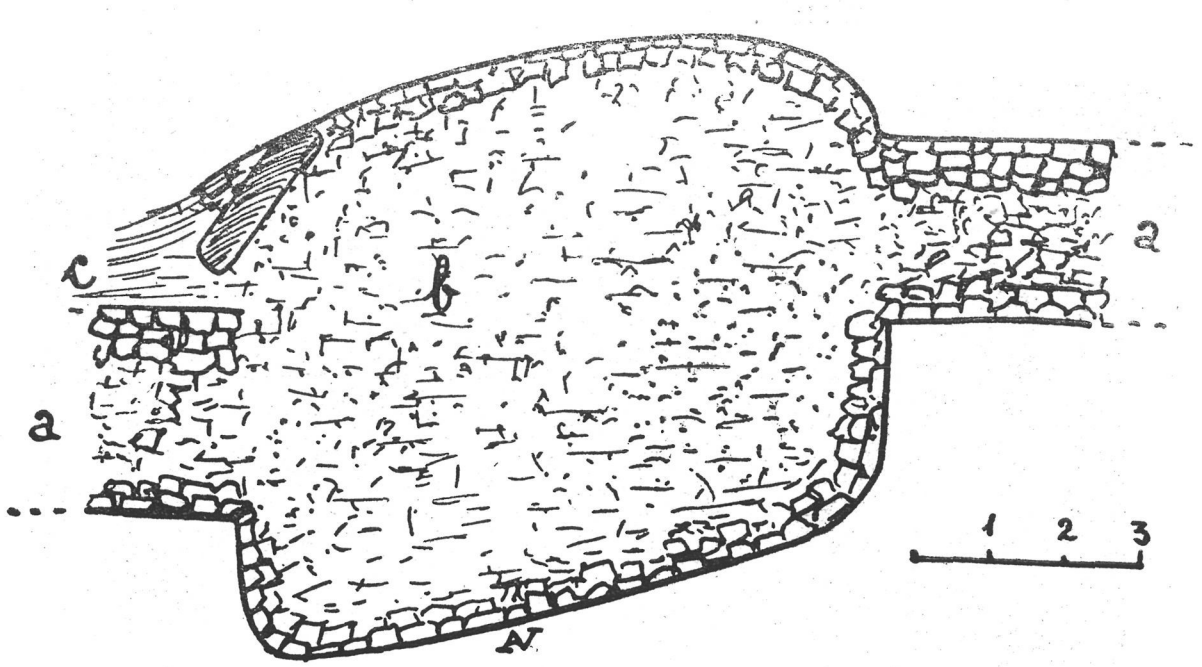


Figure 25: Sketch of the turret embedded in the second defensive perimeter. Note the access ramp (c), the flat surface made of dirt and rocks (b), and the continuation of the wall (a) on either side (after Viana 1955).

There is a staircase embedded in the internal face of the first defensive perimeter, which clearly provided access to the top of the wall (see Figure 18: E; Figure 26; see Figure 33: numbers 8 and 10). Viana (1955:66) estimates that the width of the staircase was about 0.45 m. The steps are formed by flat, roughly shaped blocks of granite. Viana identified nine intact steps, but originally there would have been more, given that the defensive wall would have been taller. The wall as it currently exists, at least in this portion, measures about 1.5 m in height. The thickness of the wall measures about 1.8 m near this staircase, but its thickness gradually increases as it proceeds farther along to the northwest, eventually reaching 2.6 m (Viana 1955:66).

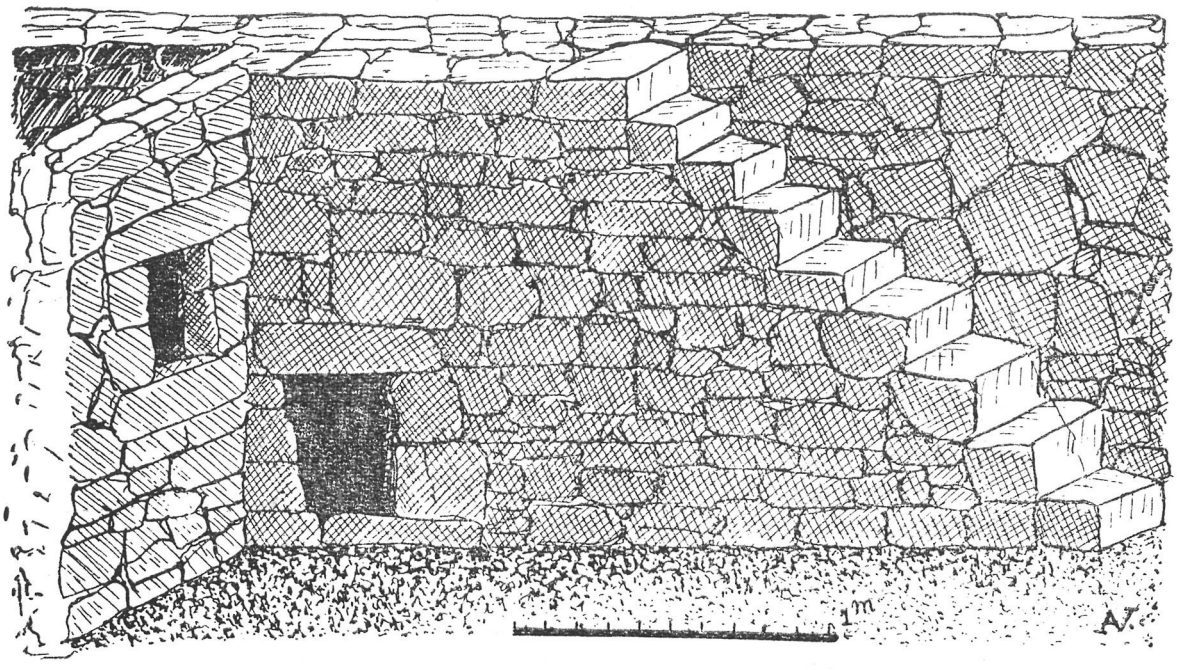


Figure 26: Sketch of the staircase on the first defensive perimeter. Note also the two openings, whose purpose is unknown (after Viana 1955).

At the end of this stretch of wall, where it finally turns west, there is a large granite outcrop (see Figure 23: e). The wall protrudes to wrap around this outcrop, and its thickness suddenly drops from 2.6 m to about 1 m at precisely this point (Viana 1955:66). This clearly shows an intentional incorporation of the natural granite outcrop into the defensive perimeter, with the sudden change in mural thickness owing to the extra reinforcement provided by the outcrop. As seen in the foundations of the grand enclosure and elsewhere, the purposeful incorporation of natural outcrops seems common.

Many of the original paving stones are no longer present across the site, but presumably these would have covered most of the patios and major pathways. Ferreira's plan-map marks hearths at various points around the site, but no information is provided about these (see Figure 18: L). *Tegulae* are also attested at this site, but details of quantity and context are not provided (Oliveira and Viana 1954:69-70).

Vestiges of what seem to be drainage channels have been encountered; one was apparently attached to Lz-56. The two square openings near the staircase of the first defensive wall may have played a role in drainage. Viana suggests this interpretation, presumably based on the difference in elevation between the two openings. The opening in the delimiting wall is placed above the opening in the defensive wall, which would have facilitated the flow of water from inside the central platform to beyond the first defensive perimeter. This interpretation is very questionable, primarily because a drainage channel would need to be elevated to pass through these openings. A channel placed at ground level, making use of the natural slope of the

terrain rather than an artificial gradient, would seem far more efficient. Furthermore, no evidence exists at this site for the type of apparatus that would be necessary to channel water through elevated openings. It is conceivable that the openings in question were nothing more than 'windows,' but their placement seems to suggest something more practical. Due to the nature of available evidence, any interpretation regarding the purpose of these two openings is entirely speculative. The only other explicit evidence relating to drainage is found in Lz-1, which will be discussed in the following section.

In his 1955 publication, Abel Viana provides detailed information on the architecture of Santa Luzia. This work follows the article that he published in 1954 in collaboration with Manuel Oliveira. This section will relate information about individual structures and nuclei, drawing from these two publications as well as from Almeida's.

Abel Viana (1955:71) identifies "ovens" in structures Lz-29, Lz-36, Lz-38, Lz-68 and Lz-72. Lz-29 is rectangular. Lz-36 is elliptical without a vestibule (Figure 27). Lz-38 is elliptical with a vestibule, and the oven is in the vestibule (Figure 28). Lz-68 is circular with a vestibule, and the oven is in the vestibule. Lz-72 is circular without a vestibule. These observations led Viana to conclude that the presence of an oven is not correlated with any particular structural shape (Viana 1955:72). Out of the five structures with ovens, two of these have their ovens in the vestibule, while the other three lack vestibules altogether. This implies that, when vestibules are present, 'vestibule ovens' are a common occurrence. It must be kept in mind that this interpretation is derived from a very small sample size.

Lz-49 is not a structure, but an oven that seems to have existed by itself. It is placed within nucleus XV, in a fairly central position, which seems to indicate that this oven (Lz-49) was commonly accessible by the structures of the nucleus. The fact that ovens are attested in the vestibules as well as in the 'main bodies' of structures allows for some meaningful speculation about the nature and function of vestibules. The fact that ovens exist outside of any structures, but within nuclei, is likewise meaningful.

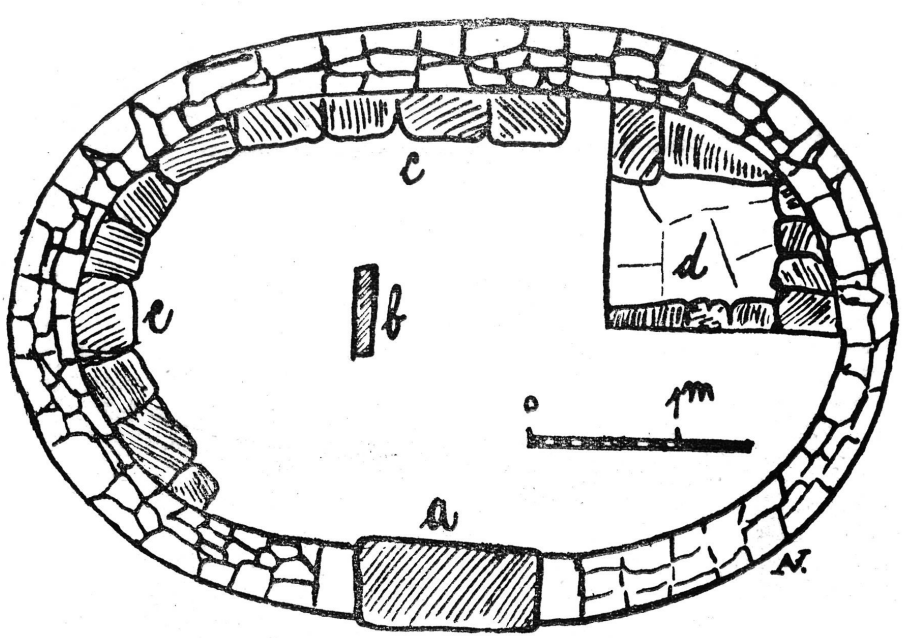


Figure 27: Sketch of Lz-36, with doorsill (a), upright central stone (b), stone bench (c), and oven (d) (after Viana 1955).

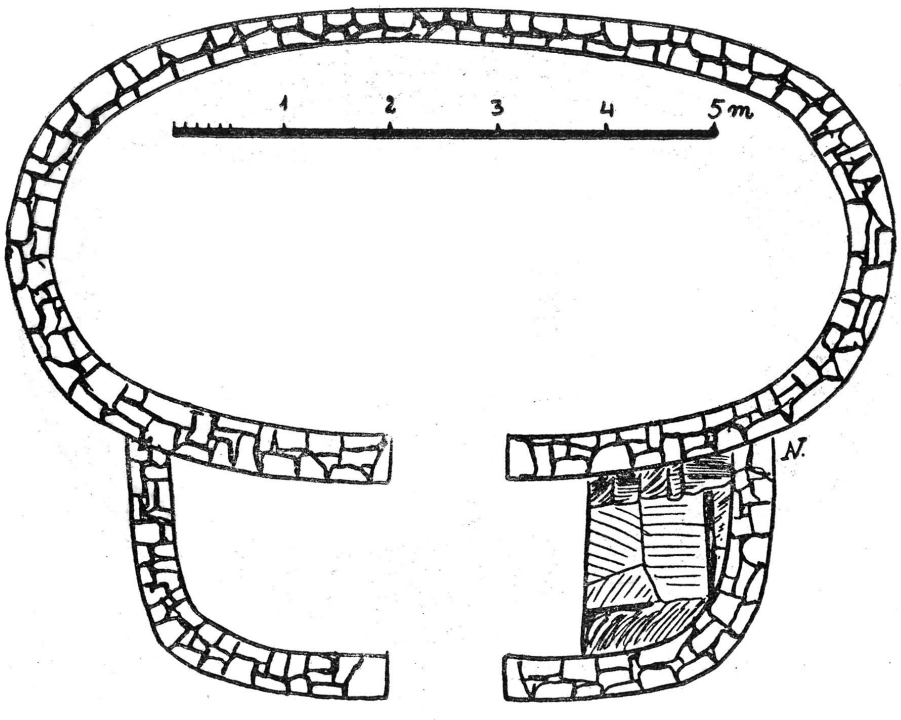


Figure 28: Sketch of Lz-38, with an oven in its vestibule (after Viana 1955).

In regard to the nuclei, Santa Luzia presents some interesting characteristics. Delimiting walls often form a rectangular perimeter around one or more nuclei, which gives the settlement plan a fairly compartmentalized aesthetic. That is to say, the distinctions between nuclei are often quite clear. However, in other cases, most notably in sector C, these delimiting walls are absent, whether by design or owing to the state of preservation. 'Nucleus' II, which contains structures Lz-19 to Lz-30, actually seems to consist of multiple nuclei. This is based on the positioning of the structures, their orientations, and the presence of a delimiting wall that extends westward from Lz-22 before turning sharply south-southeast to separate Lz-19 from Lz-20. This creates an enclosed space, presumably a nucleus, which contains Lz-19, Lz-23, and Lz-26. The western delimiting wall provides an entrance to this nucleus near Lz-23, and this entrance has a width of 1.4 m (Viana 1955:64). Within this nucleus, according to Ferreira's plan-map, is another 'external oven,' which exists outside of any structures but within the nucleus itself. Just as in the case of Lz-49, this oven is placed against one of the delimiting walls of the nucleus, and it holds a fairly central position among the structures of the nucleus.

Nuclei XI and XII are somewhat peculiar. The former is distinguished by a fairly parabolic delimiting wall; it contains four circular structures of variable size (Lz-3, Lz-4, Lz-5, Lz-78) and one rectangular structure (Lz-5) whose back wall is shared with the delimiting wall. 'Nucleus' XII, which is clearly not a nucleus despite its numeral label, only contains the single structure Lz-1. The peculiar characteristics of this structure will be discussed later on.

The grand enclosure of Santa Luzia is roughly elliptical and oriented northwest by southeast, measuring about 30 m by 20 m on its major and minor axes respectively (Oliveira & Viana 1954:45). Its wall is quite robust, reaching an average thickness of about 1.2 m. This makes the wall of the grand enclosure considerably thicker than any of the non-defensive walls of the central platform. Measured on its external face, the wall of the grand enclosure has a perimeter of 96.5 m, and its preserved height ranges from 1.2 m to 1.8 m (Viana 1955:68). The wall sits atop large outcrops of granite around its entire perimeter, which according to Almeida show clear signs of having been worked to accommodate it (Almeida 2007:52). These granite outcrops, which are quite large by all accounts, would have bolstered the foundations of the grand enclosure's wall. This phenomenon may also explain the considerable elevation of the grand enclosure (Oliveira and Viana 1954:45). Vasconcelos (1903:18) described the enclosure as "an artificial elevation with a strong wall" (uma elevação artificial, com uma parede forte). The authors have all observed this phenomenon, but only Almeida noted the working of the outcrops.

The grand enclosure has a single entrance on its west side, which has a width of 1.3 m (Almeida 2007:52). Two steps made of flat stones provided access to this entrance. According to Almeida, these were both shaped with iron tools and visibly marked by wear, presumably from prolonged use as steps. Almeida (2007:52) suggests that the characteristics of the wall and its foundations would have given the grand enclosure significant defensive potential.

Directly inside the enclosure, about 0.9 m from the entrance, are the remains of *duas pequenas paredes talhadas na própria rocha* — "two small walls carved in the rock itself" (Oliveira and Viana 1954:45). The meaning of this is not entirely clear, but presumably the "small walls" were carved from the natural granite outcrops rather than being constructed with stones. The authors speculate that these "small walls" may have formed an "obligatory passage" from the entrance to the interior of the enclosure (Figure 29: A). Large granite outcrops dominate the surface of the grand enclosure (Oliveira and Viana 1954:46; Figure 30).

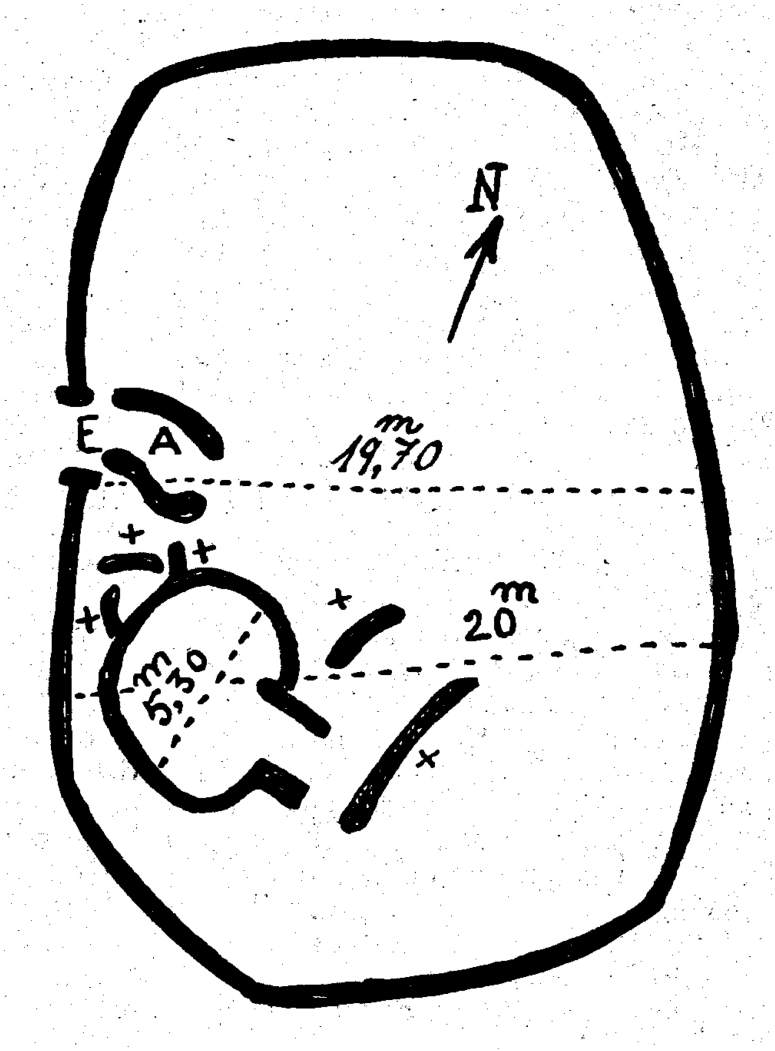


Figure 29: Rough sketch of the grand enclosure (after Oliveira and Viana 1954).

Structure Lz-7 is located directly south-southeast of the entrance, placed very close to the western wall of the enclosure (Oliveira and Viana 1954:45; Almeida 2007:52). This structure is circular, with a diameter of 5.3 m. According to Oliveira and Viana (1954), the entrance of Lz-7 had a width of 1.8 m and was oriented towards the southeast. In their rough plan-map of this area, they indicate vestiges of what seem to be appendant walls (see Figure 29). Almeida's account differs significantly; Ferreira's plan-map shows Lz-7 with a vestibule and an entrance oriented north-northeast. The double-wall of Lz-7 has a thickness of 0.55 m, with some stones well shaped, others completely unworked (Almeida 2007:52).

Almeida opened a unit within Lz-7, which did not reveal any meaningful stratigraphy. The interior surface of the structure only exhibited soil and natural rocks. Beneath the surface he only encountered a "scarce layer of brownish soil" that contained a mixture of Roman and indigenous ceramics (Almeida 2007:54). He opened another unit between the internal face of the enclosure and the external face of Lz-7. This revealed a similar situation, which is to say that there was no meaningful stratigraphy. One piece of indigenous ceramic was found, as well as what he describes as a "box" formed by the external wall of Lz-7 and two natural rocks (Almeida 2007:54). Given the lack of coherent stratigraphy and the disagreement between authors about the characteristics of this structure, Lz-7 remains poorly understood.

Almeida's account of Lz-7, with its vestibule and entrance oriented north-northeast, will be taken as more reliable. It is also worth noting that Almeida makes no mention of the "small walls" near the entrance of the grand enclosure, which only adds

to the ambiguity. Authors have proposed various theories about the possible functions of the grand enclosure and Lz-7. It seems clear that the characteristics of the grand enclosure would have given it defensive potential, but this alone is not very meaningful. Currently, the evidence does not allow for any interpretations to be accepted with confidence.

Figure 30: Partial view of the grand enclosure (photo: see Figure 20).

Lz-1, just southeast of the grand enclosure, presents a number of interesting and unique characteristics. It is fairly large and elliptical, with its external face exhibiting well-shaped stones. Based on photographs it is difficult to determine whether helicoidal patterns were employed, since little is preserved beyond the level of its foundations. While Viana (1955:74) speculates that the floors of most structures would have been

made of compacted *saibro* or clay, this structure shows no indications of a prepared surface. Instead, the interior surface of Lz-1 is “natural and completely irregular,” as it is dominated by large granite outcrops and hardly exhibits any flat surfaces (Viana 1955:74). In addition to its wide vestibule, it features a strange 'corridor' of sorts, which wraps around one side of the structure. Small holes penetrate the wall of the vestibule as well as the ‘corridor,’ near the level of the ground, as indicated in Viana’s sketch (Figure 31). He suggests that these were for drainage, which is a very credible interpretation. A delimiting encloses a large area in front of this isolated structure, forming a roughly rectangular enclosure. Again, this area is labeled via numeral (XI) in Ferreira’s plan-map, but it is clearly not a nucleus. The function of this area is just as unclear as the function of Lz-1.

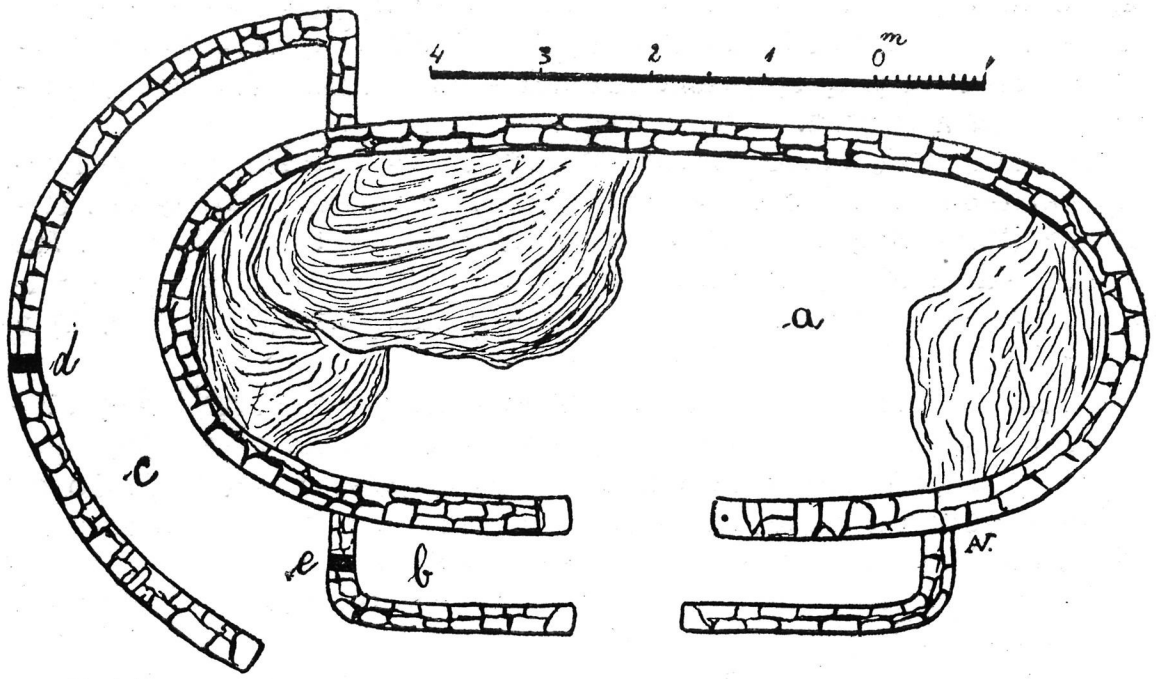


Figure 31: Sketch of Lz-1. Note the openings for drainage (e, d), the rocky interior (a), the vestibule (b) and the 'corridor' (c) (after Viana 1955).

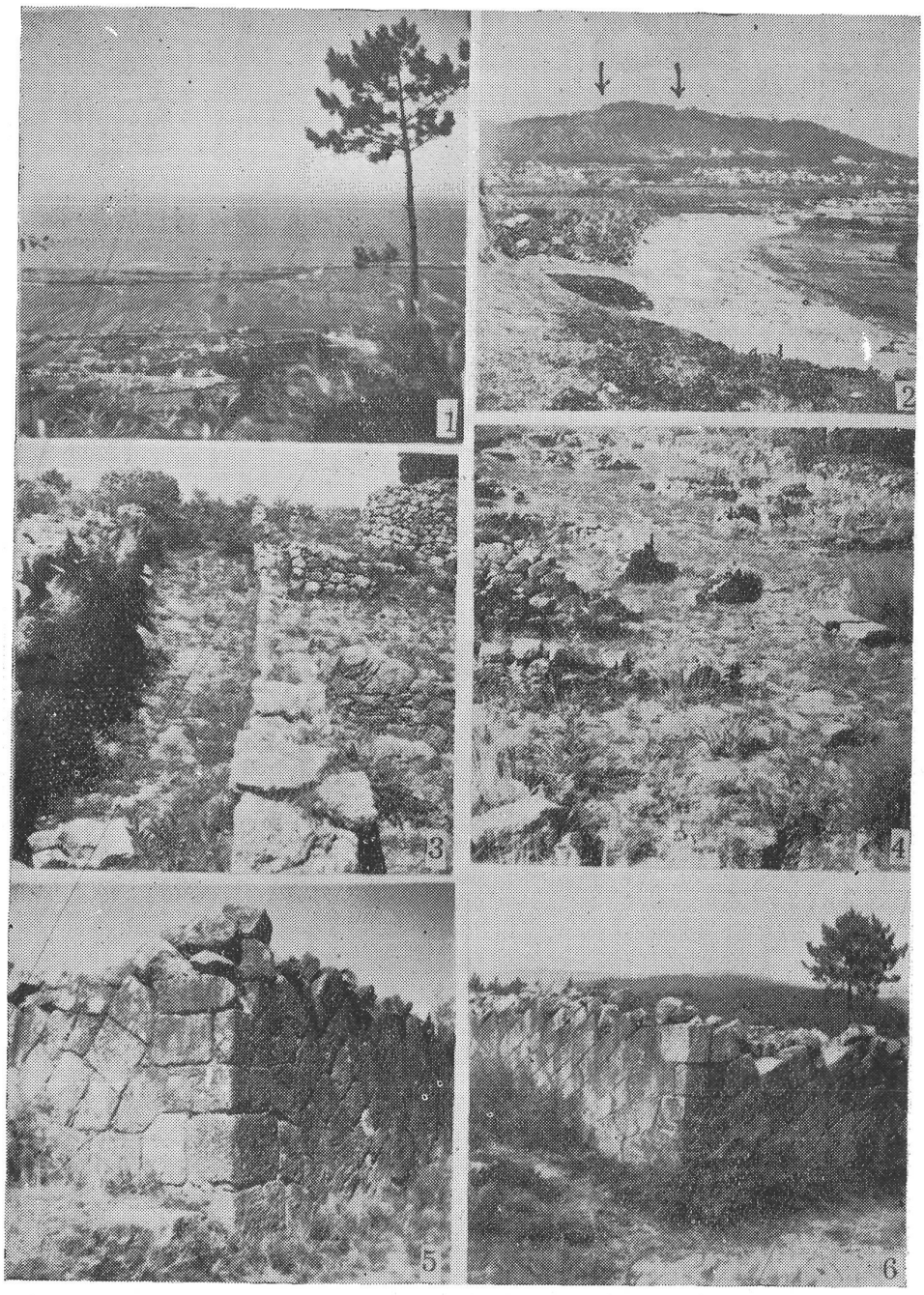
Lz-36, in the northwestern area of the central platform, is an elliptical structure without a vestibule. Based on Viana's sketch, it contains a stone bench around part of its internal perimeter, in addition to an upright central stone and an oven (Figure 27). The only nearby structure is Lz-35, alongside what seems to be an isolated delimiting wall. Based on Viana's plan-map, the northwestern portion of the central platform is covered with many natural outcrops, which may partially explain the scarcity of structures encountered in this area (Figure 23).

Lz-35 is a circular structure with a fairly large vestibule. Its walls have a thickness of about 0.45 m, made up by two rows of stones (Almeida 2007:54). The stones of the external face are generally larger and better shaped, sometimes showing clear use of the iron pick. Its doorsill has a width of about 1.08 m, made of three well-shaped stones (Almeida 2007:55). According to Almeida (2007:55), the doorsill of the vestibule has holes to accommodate the fitting of a "door hinge." This phenomenon is not seen in the doorsill of the structure's main body, strongly suggesting that the only door to Lz-35 was in its vestibule. Almeida opened units within the main body of the structure and within the vestibule. Both contained floors of yellowish, compacted *saibro* near the surface (Almeida 2007:55-56). Based on the stratigraphy, Almeida concludes that Lz-35 was not built over any previous structures. No chronologically useful materials were recovered from the two units opened in this structure.

In Lz-37, the lower portion of the wall is about 5 cm thicker than the upper portion of the wall, and this very sudden shift in thickness takes place precisely at the level of the doorsill. Apparently the doorsill of Lz-37 is 0.80 m above ground level, and the

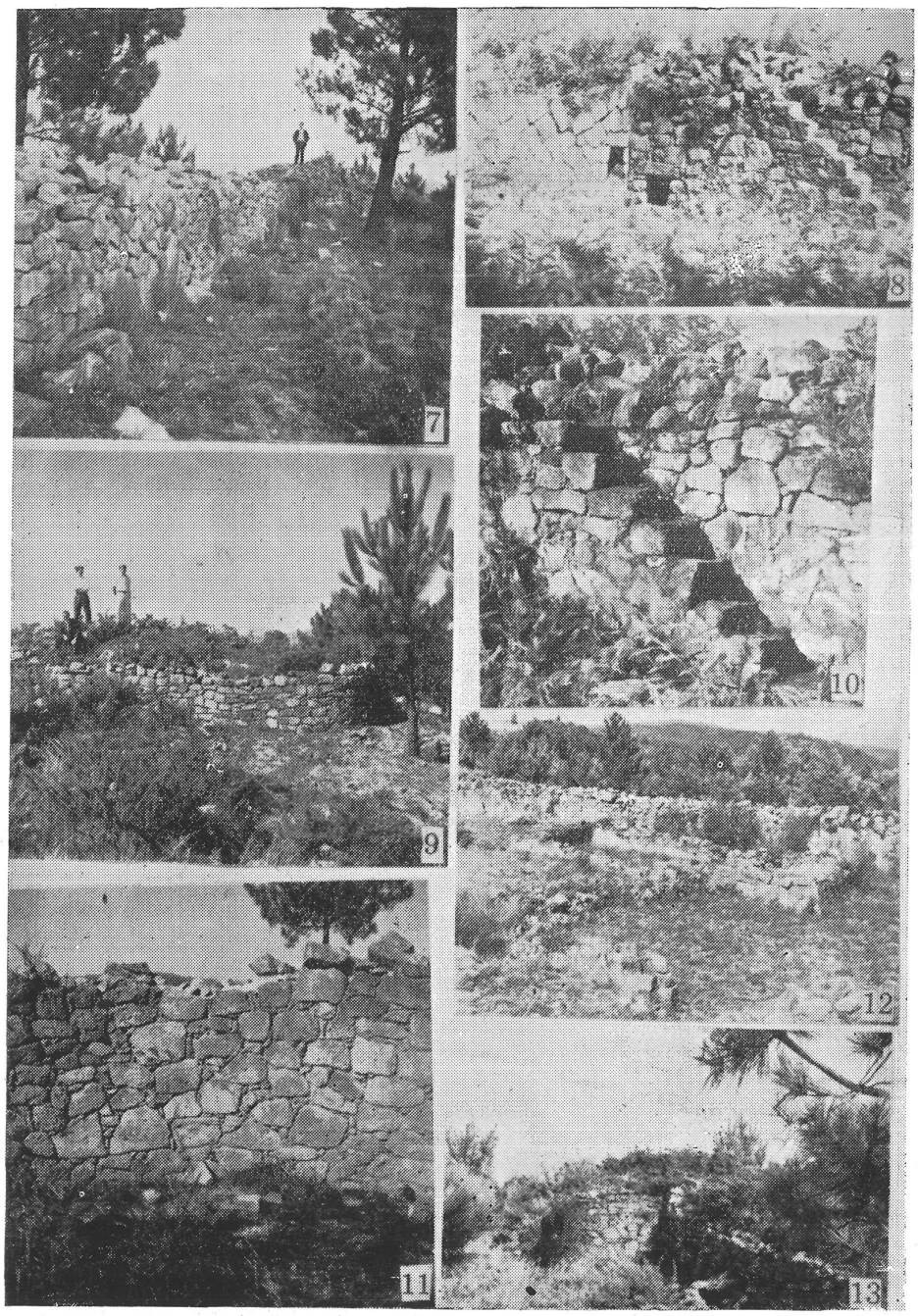
ground level is the same on both the exterior and interior of the structure (Viana 1955:82). It should be noted that the unknown methodologies of the earliest excavators make it very difficult to confirm whether the surface currently seen on the interior of a structure is truly the level of the most recent occupational phase. That is to say, it is possible that the floor of Lz-37 was originally above 'ground level,' but the early excavators may have simply excavated through the interior layers until they had reached an elevation matching that of the ground level outside. Presumably, the ground level outside of structures was determined with relative ease by noting the level of nearby paving stones. The presence of a central stone in the interior surface of Lz-37 supports the notion that this was indeed the level of the floor, rather than an arbitrarily determined elevation.

Almeida (2007:58-61) suggests that Lz-33 was the "central element" of Nucleus IV, which also contains Lz-32 and Lz-34. It has a vestibule, as well as two appendant walls that extend outward to enclose the space of this fairly small nucleus. Its entrance is oriented toward the patio of the nucleus, which would have once been paved. The entrance of Lz-34 is also oriented towards this patio, while the entrance of Lz-32 is not attested. The walls of Lz-33 are composed of a mixture of worked and unworked stones; those better shaped are near the entrances of the main body and vestibule. The interior of the structure exhibits a very well-made floor of compacted *saibro* in its upper layer, which was placed above a layer of soil and natural rocks. A prominent, upright central stone is visible on the surface (Almeida 2007:58-61).



1, Vista sobre a Veiga de Areosa e sobre a praia rochosa (Castelo Velho), tomada da estrada que contorna a citânia pelo lado ocidental; 2, Vista tomada do Castelo Velho, na praia rochosa, para o monte de Santa Luzia. A citânia ocupa o ponto mais elevado, assinala do entre setas; 3, Caminho, em parte lajeado, entre a parede a que se encostam as casas 23, 24, 26, 27 e 29, e o talude ao lado das casas 42, 43, 45 e 46; 4, Area em que estão as casas 24, 25, 28, 30 e 31. Ao fundo, a muralha interior. No primeiro plano, o pátio lajeado em frente da casa n.º 24; 5, Cunhal do cercado das casas 8 a 15, lado ocidental; 6 Cunhal do mesmo cercado, do lado oriental.

Figure 32: Photographs and descriptions (after Viana 1955).



7, Parte da muralha média, com o torreão indicado pela letra c na Fig. 1. Sobre o torreão está un homem; 8, Escada de acesso ao coroamento da muralha interior, junto à divisória de um dos «bairros» (Fig. 1, letra b). Quer na dívisória quer na muralha, acham-se duas estreitas passagens que podem ter servido para escoante de enxurros, ou mesmo a passagem de pessoas e de pequenos animais domésticos; 9, O torreão da murralha média, visto do Sul, pela parte interna; 10, Pormenor da escada de acesso (Vid. Fot. n.º 8); 11, Aparelho do cercado onde se encontra a casa n.º 7; 12, Área onde se encontra a grande casa rectangular (n.º 22) e as duas paredes em «T». Ao fundo a muralha ínterna; 23, O torreão da muralha média, visto de Noroeste, pela banda de fora

Figure 33: Photographs and descriptions (after Viana 1955).

According to Almeida (2007:59), the stratigraphy confirms that Lz-33 was built on "virgin soil." Again, floors of compacted *saibro* exist in both the main body and the vestibule (Almeida 2007:60). The foundations of Lz-33 seem to have been dug in a level of decomposed granite. In the vestibule was found, embedded in the floor, a Haltern 70 amphora made of pink paste (uma Haltern 70 em pasta rosa). According to Almeida (2007:60), this amphora dates the floor to the second half of the 1st century C.E. (see Appendix 1 for more information on 'Haltern 70').

Lz-5 is rectangular, with what seems to be one half of a vestibule. It exhibits a floor of compacted *saibro*, underneath which was found a layer of "reddish *saibro*" (Almeida 2007:65). The latter was apparently decorated, and it showed "signs of burning in its upper part." Almeida interprets this reddish layer as a hearth. The oldest ceramics encountered in this structure were made with a wheel. Outside, to the north of the entrance, were found vestiges of what Almeida thinks may have been the other half of the vestibule, perhaps remnants of the previous occupational phase associated with the hearth. These findings seem to suggest that Lz-5 was not built on "virgin soil" (Almeida 2007:65).

Nucleus X stands out as perhaps the best example of the helicoidal pattern. An independent delimiting wall completely surrounds this nucleus, forming a rectangular enclosure. This wall is helicoidal along its entire length, but only on the external face. The structures of the nucleus, at least those still visible, are all constructed with helicoidal patterns on their external faces. Photographs, plan-maps, and measurements are the only source of information currently available for this nucleus.

The Citânia de Santa Luzia preserves a wealth of architectural information, only a portion of which is represented in this chapter. This is due primarily to the fact that detailed information has not been published for many of the structures; this chapter only relates what has been explicitly recorded via excavation reports, photographs, illustrations, and cited authors. Although an exhaustive account of the architecture at Santa Luzia is out of reach, the body of available evidence is quite meaningful. The current section provides a summary of this evidence accompanied by a brief interpretive discussion of the site's major patterns and peculiarities, with an emphasis on the aspects that should be kept in mind for later comparative analysis.

Overall, the settlement plan of Santa Luzia is noteworthy for its organization. It is characterized by a considerable degree of complexity, which is not fully understood due to the nature of the remains. As has been seen, certain areas labeled with numerals on the plan-map are not actually nuclei, while other areas that seem to be nuclei are not labeled as such. Many structures do not seem to belong to any distinguishable nucleus, which is the case for most of the structures in of sector C. The plan-maps are inherently approximate and therefore imperfect, and the remains themselves are incomplete. Thus when a complete, enclosed nucleus is not attested, this does not imply that such a nucleus was never present. At the same time, there is no reason to believe that every single structure would have existed within a nucleus. Nevertheless, certain areas exhibit clear and recognizable organizational mechanisms, and these areas can be meaningfully interpreted.

Based on the version of Ferreira's plan-map published by Almeida, the site's most visible nuclei are IV (Lz-32—Lz-34), VII (Lz-41—Lz-44), X (Lz-8—Lz-15), XV (Lz-48—Lz-51), and the unlabeled nucleus that contains Lz-19, Lz-23, and Lz-26. These all exhibit a very distinct and mostly complete perimeter, constituted by delimiting walls in combination with the external faces of structures. This boundary creates a shared internal space, i.e. 'patio,' and every structure listed above whose entrance is visible on the plan-map has its entrance oriented towards the patio of its nucleus. Furthermore, in each nucleus listed above, there does not seem to be any 'leftover space,' such that these five nuclei may be treated as 'complete.' Thus they can be analyzed, with a fair degree of confidence, as distinct organizational units.

Each of these five nuclei contains at least one circular structure with a vestibule and at least one circular structure without a vestibule. Each of them except for the unnamed nucleus contains at least one elliptical structure. The unnamed nucleus has a single quadrangular structure of fairly small smize (Lz-23), which shares its back wall with the western delimiting wall of the nucleus. This type of structure also seems present in nucleus X, though in this case there are three of them, each slightly larger (Lz-11, Lz-12, Lz-15). The unnamed nucleus and nucleus XV both exhibit an external oven, while VII and X apparently exhibit external hearths in fairly central positions. Paving stones are partially attested in the patios of each of these five nuclei, except for IV, but Almeida (2007:59) suggests that paving stones would have originally been present based on characteristics of the soil near the vestibule of Lz-33.

Clearly, the five 'complete nuclei' present at Santa Luzia share some compelling similarities. It is tempting to begin assigning functions to individual types of structures based on such observations, and various authors have attempted to do so. For example, González-Ruibal (2006) incorporates sketches of Santa Luzia's nuclei X and IV into one of his illustrations, identifying them as "noble and common domestic compounds," respectively. He interprets each circular structure with a vestibule as the "main house," and he confidently asserts that each such "house" would correspond to a single "nuclear family" (González-Ruibal 2006:161). Put quite simply, this interpretation lacks sufficient evidential basis. The kinship structures of the Castro Culture have not been reliably attested; furthermore, there is no reason to believe that every castro site would have operated identically in that regard. His differentiation between "noble" and "common" seems to rely on the assumption that a larger nucleus with more structures corresponds to a more socially important individual or "family." Currently there is not enough evidence to suggest that each nucleus corresponds to a single inhabitant, or even to a single group of related inhabitants. The lack of evidence from material culture, other than the number or size of structures, compromises such interpretations. While González-Ruibal offers a meaningful theoretical discussion, his precise sociocultural interpretations of nuclei are largely unfounded.

That being said, the five nuclei discussed above do contain similar components and characteristics, and these should be kept in mind. Perhaps, once more evidence has been thoroughly recorded, comparative analysis will allow for more meaningful speculation. Eventually, this may even allow for reasonable claims to be made about

the functions of certain types of structures or the implications of certain differences between nuclei. For the moment, any attempt to make such claims requires one to make assumptions that are not supported by available evidence.

The characteristics of Lz-36 are quite noteworthy; it seems to have a stone bench as well as an oven. The presence of ovens outside of structures and in vestibules should be noted. Lz-1 is quite peculiar based on its structural characteristics, which largely evade explanation. All of the characteristics of Lz-37 are fairly peculiar as well. Lz-35 suggests that some structures had their doors placed in the vestibule, which is a very significant finding. In general, structures whose specific and/or unique characteristics were discussed in this chapter should be kept in mind.

The presence of *tegulae* suggests that vegetable materials were not the only type of roofing material used, but the quantity of these tiles demands that they would not have been the most common roofing material. Since no other roofing materials are attested, the roofs were presumably perishable. The theory that roofs were constructed of vegetable material is therefore still viable, and there is no evidence to contradict it. Still, the issue warrants further study, and the exclusive use of vegetable materials should not be taken as a given. The prevalence of central stones suggests that central support posts would have been a standard feature in the circular structures at Santa Luzia. Based on the evidence available, central hearths are not attested. The vestibule of Lz-33 exhibits a floor of compacted *saibro*, which strongly suggests that this vestibule, and likely others, would have been covered to protect it from rain (Almeida 2007:60).

The grand enclosure is both interesting and problematic. At a purely functional level, its robust walls suggest that it was built for defensive purposes, but this interpretation lacks further support. Since its interior surface is dominated by large outcrops of natural granite, it probably would not have served as a comfortable dwelling space. Lz-7 also lacks any indication of a prepared interior surface. Ultimately, there is not enough evidence to adequately explain the peculiarities of the grand enclosure or Lz-7, and this phenomenon warrants further investigation. As will be seen, at least a few other sites exhibit constructions that are very similar to the grand enclosure of Santa Luzia.

The site's defensive characteristics are one of its most informative features. For example, the staircase embedded in the first defensive perimeter proves beyond a shadow of a doubt that this wall was intended to be walked upon. The turret of the second defensive perimeter supports this as well. Based on Viana's illustration, this turret was accessed by a ramp. Both of the remaining defensive perimeters at Santa Luzia thus exhibit some form of access to the top of the walls. The exact function of the turrets is currently unclear; considering examples of similar phenomena at other castros may allow for more meaningful discussion.

Finally, the construction techniques encountered at this site are noteworthy. Helicoidal patterns are clearly attested in many structures and in several delimiting walls. Thus the inhabitants of Santa Luzia almost certainly had access to very skilled craftspeople, in addition to the time and resources necessary to accomplish feats of such finesse and precision on a wide scale. Currently, it seems that no research has

been undertaken regarding the functionality of helicoidal walls. Perhaps experimental archaeology could provide some answers, but until then it is not clear whether the laborious production of helicoidal walls was motivated by anything other than aesthetics. Photographs of Lz-8 and Lz-9 reveal that the internal faces of helicoidal structures were often unimpressive, being constructed of small and irregular stones. This lends credit to the notion that an impressive external front was the primary consideration. This is likewise observed in non-helicoidal structures, as external faces tend to be smoother and more regular than internal faces.

The central platform contains many natural outcrops of granite, and these were sometimes incorporated into the foundations of structures as well as in the defensive walls and the grand enclosure. This practice entails considerable forethought, but aside from functional considerations its meaning is unkown. The incorporation of natural outcrops into structures, as well as the slight working of outcrops for this purpose, warrants further study. On a final note, double-walls are standard, as are floors of compacted *saibro* (again, see Appendix 1). The use of plaster is not attested in any structures. It is possible that plaster would have originally been present, but there is nothing from the site to suggest that this was the case. The presence of elevated thresholds is worth noting, as is the lack of stone staircases preceding such thresholds. This suggests the possibility that wooden ladders and/or wooden staircases may have been used. While stone steps may have been used to access the elevated thresholds, this is not recorded by any of the authors. For the moment, access via stone steps is only clearly attested in the entrance to the grand enclosure.

Again, it is worth noting that chronology has been largely ignored in this chapter. This is due to the fact that architectural remains from previous occupational phases are not attested at Santa Luzia, and therefore chronological discussions would not have been fruitful for the purposes of this investigation. Chronological material is generally scarce at this site, but a number of observations clearly identify it as one of the 'later sites.' For the moment, we may simply conclude that the architecture at Santa Luzia dates to the Early or Middle Roman Period (around the 1st century C.E. or later).

The Castro de São Lourenço occupies a prominent monte in the county of Esposende, in the district of Braga. Its peak reaches an elevation of 200 m, with *uma coroa formada por uma imponente massa granítica* — "a crown formed by an impressive granite mass" (Almeida 2006:72; Figure 34). The monte is very steep on all sides, with a general prevalence of large granite outcrops. Flat surfaces are a rarity, and there is no 'central platform' of which to speak (Figure 35).

Figure 34: Partial view of sector C, taken from the road (in front of the entrance to C-2), facing southwest. Note a section of the "crown" looming above. The nearest reconstructed building is C-9, with a small portion of the reconstructed C-8 visible behind it. Farther in the background, a glimpse of the reconstructed CV-3 and CV-1 (photo by author).

Figure 35: Partial view of CV-3 and CV-1 from the edge of sector C (in the general vicinity of C-5 and C-6), facing southeast. Note the steep incline and the clear 'terracing' (photo by author).

Carlos Alberto Brochado de Almeida led the earliest excavations at the Castro de São Lourenço in 1985, and in the following years he continued to lead expeditions of cleaning, restoration, and excavation. No excavations are recorded before the 1980s, such that the history of research at this site is truly the history of Almeida's research. His 2015 publication provides an extremely thorough, almost exhaustive account of the evidence encountered from the first excavations until the present. Archaeologist Ana Paula Almeida co-authored this publication, and she played an influential role in the

entire research process. Thanks to the work of these two scholars, there is no need to piece together a clear, up-to-date picture of what has been undertaken or encountered at this site.

Castro remains have been encountered in various locations around the monte (Figure 36). Some structures wrap around the northern slope beneath the peak, at elevations between 180 m and 190 m (see Figure 36: C, CV). Farther up, on the western slope, a group of very partial structures was encountered at about 195 m (see Figure 36: E). A chapel dedicated to São Lourenço occupies the peak, obscuring whatever castro remains may have existed beneath (see Figure 36: A). The chapel was built sometime around the 15th century, but a medieval refortification of the site may have taken place as early as the 10th century (Almeida 2006:92).

Beyond and thus below the area of sectors A, C, CV, and E, three fairly isolated sectors were opened during several excavation seasons (see Figure 36: D, M, T). Sector D contains remnants of the earliest encountered defensive wall (Almeida and Almeida 2015:253-267). Most of the wall in question is hidden beneath two defensive walls of later periods, but its external face is clearly attested. Almeida (2006:73) thinks that the earliest defensive system was established sometime during the 1st century B.C.E. or the 1st century C.E. Evidence of the Phase III defensive wall is restricted to sector D. The original extent of this wall is unknown, just as the full extent of the Phase III settlement is unknown. Evidence for earlier occupations is scarce, but at least one structure (C-4) corresponds to Phase II (Almeida and Almeida 2015:174).

Many construction stones from the abandoned castro were likely repurposed during the medieval occupations, and many of the castro remains suffered considerable damage or complete destruction. The building of São Lourenço's chapel was accompanied by an access road and a large staircase, and for this reason the entire upper portion of the site suffered extensive damage. In short, the presence of medieval constructions at this site creates a major obstacle and largely prevents a clear understanding of the built space during earlier occupations.

All things considered, the organization and extent of the castro settlement are not clearly indicated, such that São Lourenço does not exhibit a 'settlement plan' in the conventional sense. The built spaces can only be understood in the context of their immediate surroundings, because the nature of the relationships between distant sectors is unclear. This is due in part to the fact that the present access road to the chapel bisects the archaeological site. Sectors C and CV constitute the largest area of uninterrupted built space at São Lourenço. Being near the top of the monte and pertaining mostly to Phase III, these two sectors constitute most relevant portion of the site in the context of this investigation. Accordingly, this chapter focuses on the evidence from these two sectors. This represents only a small portion of São Lourenço's total evidence, which is both incomplete and very complex. Nevertheless, the result is quite meaningful. The authors provide explicit details on almost every structure encountered. The following sections will discuss the evidence in detail, with all information taken directly from Carlos Almeida and Ana Almeida's 2015 publication.

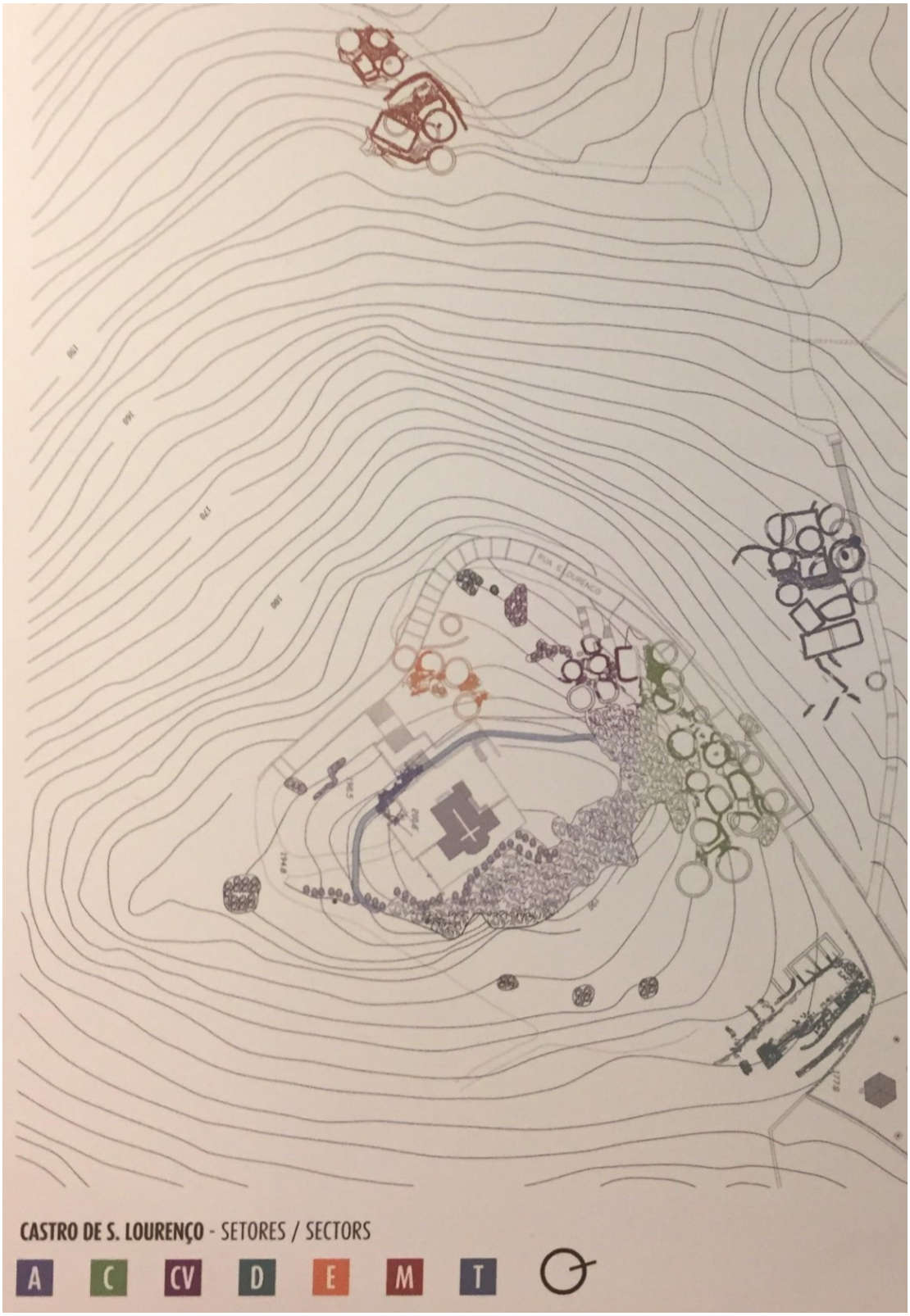


Figure 36: Topographical plan-map of São Lourenço (after Almeida and Almeida 2015).

Sector CV contains only a few structures, which will be discussed later. Sector C contains structures C-1 through C-16 (Figure 37). Based on stratigraphy and radiocarbon dating, C-4 was likely constructed before 200 B.C.E. (Almeida and Almeida 2015:174). This makes C-4 the only Phase II structure clearly attested, and its remains are very partial. The chronologies of C-15 and C-16 are uncertain, but the rest of the structures in sector C were seemingly constructed during Phase III (Almeida and Almeida 2015:174-176). Apparently many of these structures were rebuilt or 'remodeled,' with some portions belonging to Phase IIIA and others to Phase IIIB.

The authors state that all Phase IIIA structures encountered were circular (Almeida and Almeida 2015:174). The construction stones were smaller on average, and they almost never showed signs of having been shaped with iron tools. In general, the 'wall stones' were bound together with clay, and the floors were made of compacted *saibro.* The older portions of the walls of C-2, C-7, and C-9 show clear evidence of burning on their internal faces. The authors speculate that, at some point during Phase IIIA, an uncontrolled fire damaged or destroyed many of the structures in sector C (Almeida and Almeida 2015:174). As will be shown, the stratigraphy of certain structures (e.g. C-2 and C-3) strongly substantiates this interpretation.

Apparently the Phase IIIB walls used larger stones, which often showed use of the iron pick (Almeida and Almeida 2015:175). Construction stones were still bound together with clay, but the authors observe that these stones were often laid in more regular, roughly horizontal courses. Walls continue to be composed of two rows of stones, with the stones of the external face being typically large and well shaped, and

the stones of the internal face being small and irregular. During this phase the internal faces of structures were often coated with plaster. The exact composition of the "plaster" at this site is currently unknown, but it was often painted white or "yellowish." Near the level of the floor, the plaster was often painted "grayish" (Almeida and Almeida 2015:175).

The chronology of sectors C and CV is complex; most structures exhibited some form of change through time. Not every structure was excavated to a considerable depth, and tree roots disrupted much of the stratigraphy (Almeida and Almeida 2015:174). In general, the differentiation between structures of Phase IIIA and Phase IIIB seems to rely on stratigraphic analysis, ceramic typologies, and observations about construction techniques (Almeida and Almeida 2015:175). The authors' observations about the supposed shift in construction techniques between Phases IIIA and IIIB are noteworthy, but it is difficult to evaluate their claims. Due to the complexity of the archaeological remains and the scale of this investigation, taking the excavator's interpretations at 'face value' will be more productive than attempting to fully reconstruct the evidential basis. This chapter will simply accept that every structure except C-4 corresponds to Phase III, making no attempt to refine the chronology further.

This chapter provides a thorough account of the characteristics of a small number of structures, otherwise describing trends in construction techniques and relating the authors' general observations. Stratigraphy is explicitly discussed in certain cases, but discussions of chronology are largely avoided. The site is sufficiently covered by the authors; this chapter's goal is simply to provide material for comparative analysis.

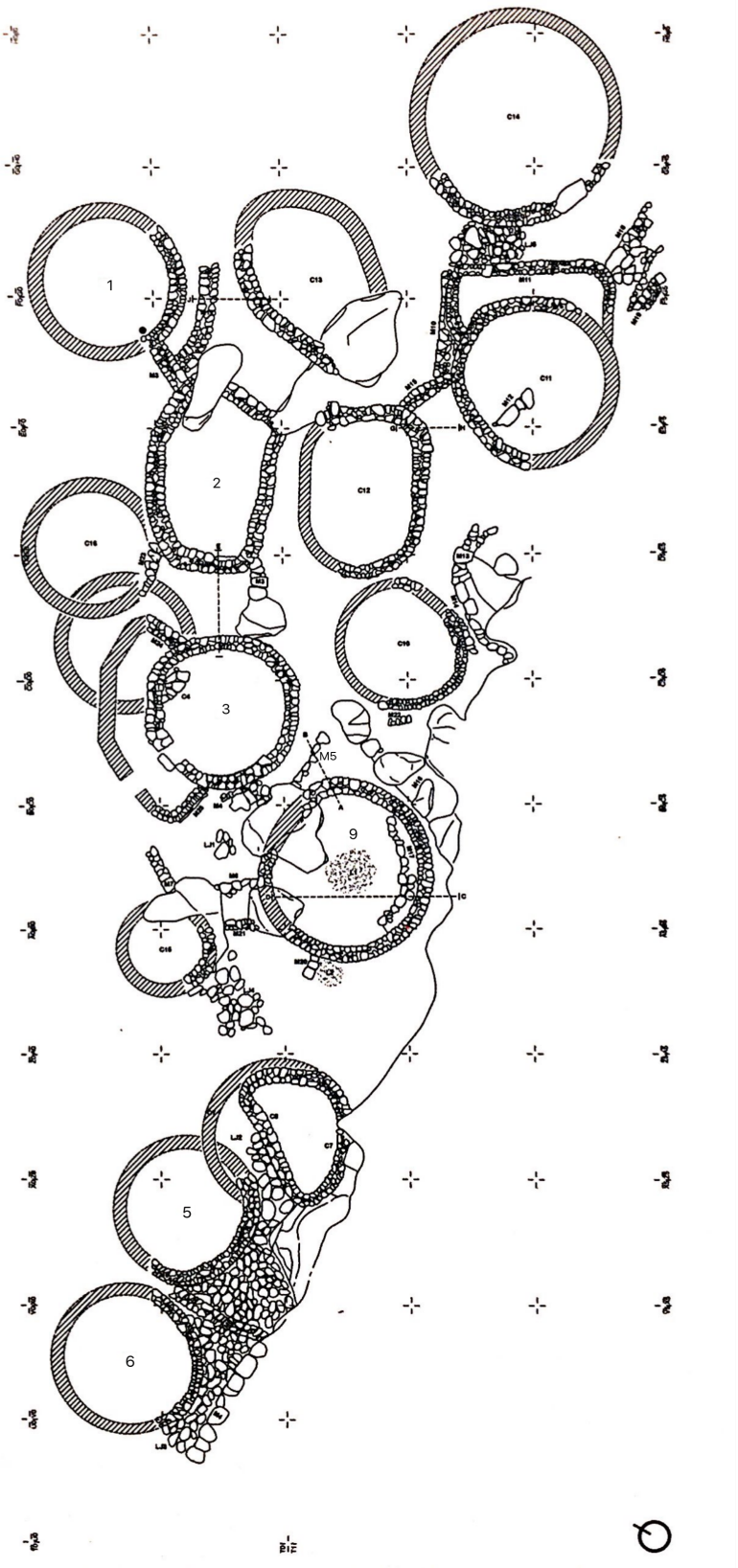


Figure 37: Plan-map of sector C (after Almeida and Almeida 2015).

The remains of C-1 are very partial, but it appears to have been a circular structure with at least one appendant wall (Almeida and Almeida 2015:156-157). The structure itself has a double-wall, with the external face generally exhibiting larger and more regular stones, many of which show clear use of the iron pick. The smaller stones, appearing more frequently on the internal face, do not show signs of having been worked. The space between the two rows of C-1's wall was filled with "yellowish clay" and small rocks. The internal face of the wall exhibits remnants of *argamassa de barro* and "plaster," seemingly painted white. The criteria of the term "plaster" are currently unknown (see Appendix 1 for *argamassa de barro*). The interior surface of C-1 revealed a very thick and compacted floor of smooth, yellowish *saibro*. A Haltern 70 type amphora was embedded directly in this floor (see Appendix 1 for the meaning of 'Haltern 70').

Plates of schist were found lying on the floor near the walls of C-1, suggesting their use as a construction material. An interesting central stone was found in C-1, described as the "drum of a granite column" (tambor de uma coluna granítica) (Almeida and Almeida 2015:156). The implications of this terminology are not entirely clear. Since there is no evidence for a full column in stone, the authors' suggestion that this "drum" functioned as the base for a wooden post remains feasible.

Structure C-2's double-wall used stones of varying size, and the authors state that its entrance faced north, towards the modern road (Almeida and Almeida 2015:158). They claim that the current form of C-2 resulted from the 'remodeling' of an older structure, which had been destroyed by fire. Apparently the walls and/or construction

stones of C-16 were reused in C-2, and C-2 also repurposed the appendant walls of C-1. The stratigraphy of C-2's interior is provided in detail (Figure 38). The authors interpret level 5 as a prepared floor of *saibro* (Almeida and Almeida 2015:141-142). Level 4 seems to be a 'burn layer,' characterized by high concentrations of ash and charcoal. *Tegulae* are well attested in this layer, suggesting that C-2's roof was made of tile. The authors claim that much of the charcoal found in level 4 came from the wooden beams of this roof (Almeida and Almeida 2015:158).

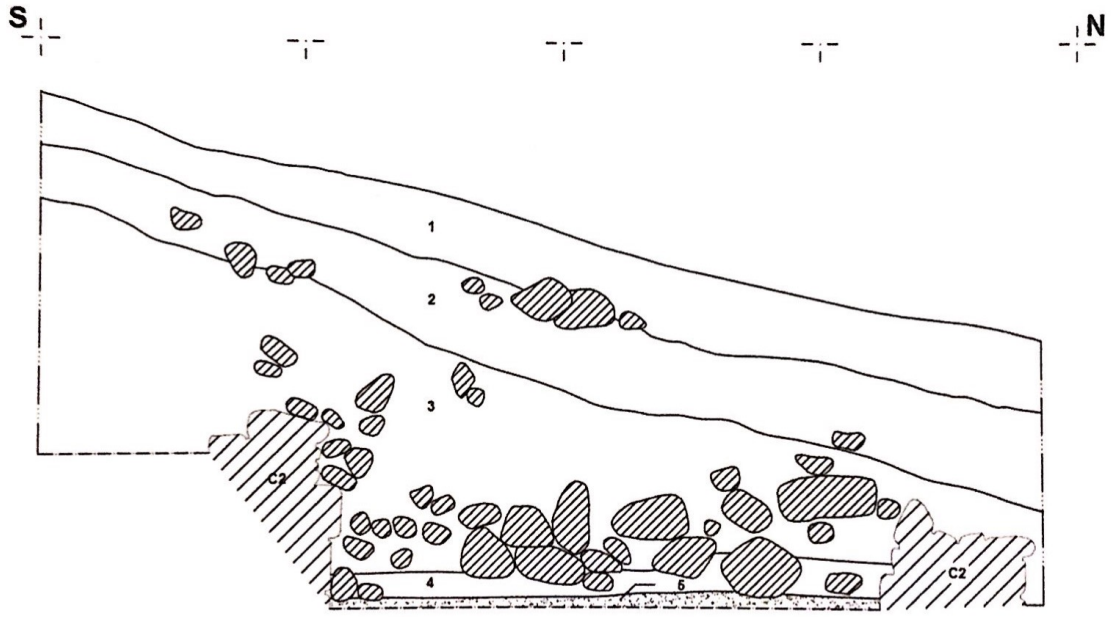


Figure 38: West profile-map for C-2 (after Almeida and Almeida 2015).

C-3 was a circular structure with a wide vestibule. Its walls were made of two rows of stones, with the intervening space filled with "yellowish clay" and small rocks (Almeida and Almeida 2015:159). The construction stones varied in size, but those of the internal face were generally smaller. Based on preserved samples, the authors suggest that the internal face of the wall was "plastered with *argamassa* and painted

white" (rebocada com argamassa e caiada). The portion of the wall nearest the floor, described as the *rodapé* or "baseboard," exhibited a similar coating, but it was painted "grayish." C-3's entrance was oriented northwest, toward the modern road that now covers most of C-3's vestibule. Due to the construction of the modern access road, which is simply a widening of the medieval road, evidence from C-3's vestibule is not available. A very worn, rectangular doorsill was fixed in the ground at the entrance to C-3 (Almeida and Almeida 2015:159).

A floor of yellow *saibro,* compacted and of "very good quality," covered the interior surface of C-3 (Almeida and Almeida 2015:159). A sub-rectangular stone was fixed in the floor at the center of the structure, possibly serving as the base for a central post. Lying near this central stone was another stone with some intriguing characteristics; it was rectangular, decorated, and showed clear signs of burning. The authors suggest that the presence of this stone may indicate a central hearth (Almeida and Almeida 2015:176). To be clear, this thesis contends that a central hearth and a central post cannot possibly coexist in a single structure.

Small plates of schist were found "embedded in the *saibro*" (cravadas em cutelo no saibro) near the walls of C-3 (Almeida and Almeida 2015:159). This leads the authors to suggest that a series of schist plates would have been attached to the wall's external face, encircling the structure near the level of the roof to create a "gutter" for diverting rainwater. The authors suggest that the schist plates would have been inserted near the roof, and the walls were not preserved to this height. Thus when describing the schist plates as "embedded in the *saibro*," the authors are probably referring to chunks

of *saibro* lying on the ground near the walls. The authors also suggest that C-3, as well as every other circular structure, would have been covered with a roof of vegetable materials (Almeida and Almeida 2015:159).

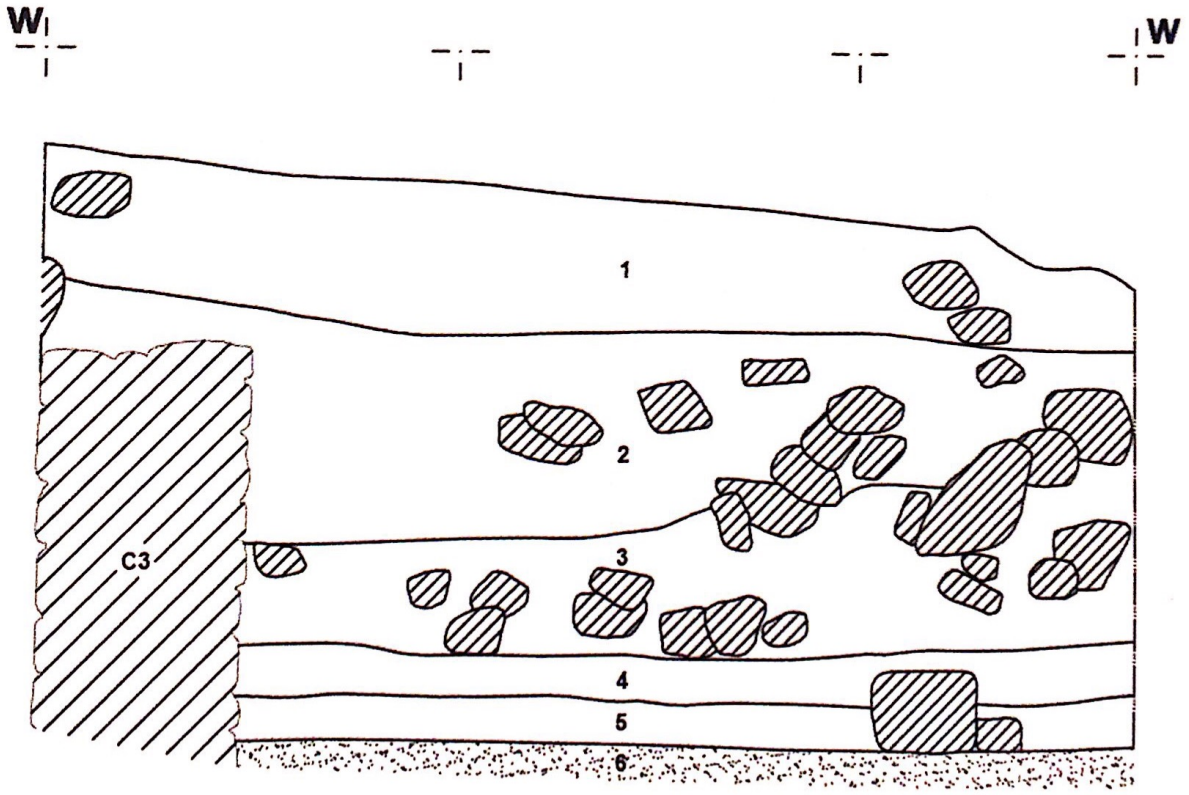


Figure 39: South profile-map for C-3 (after Almeida and Almeida 2015).

Tree roots heavily disturbed the stratigraphy of C-3, and most of the layers beneath level 6 were very mixed (Almeida and Almeida 2015:132-133). Level 6 has already been described; it is the floor of compacted *saibro* in which the sub-rectangular central stone was embedded (Figure 39). Level 5 contained ashes and a mix of ceramics, including fragments of Haltern 70. It also contained remnants of yellow *argamassa*, which the authors interpret as construction material from the walls of C-3.

Level 4 is characterized by extensive burning, with much ash and charcoal. Levels 3 through 1 seem to be 'destruction layers' resulting from the collapse of C-3's walls (Almeida and Almeida 2015:132-133). The stratigraphy of C-3 clearly indicates significant damage from an uncontrolled fire, a phenomenon that is also attested in nearby structures. The authors suggest that all of the structures damaged by this fire were subsequently rebuilt and remodeled (Almeida and Almeida 2015:174-176).

A unit was opened between structures C-2 and C-3, revealing what seems to be a prepared floor of compacted *saibro* (Almeida and Almeida 2015:138). The chronology is uncertain due to mixed stratigraphy, but the authors suggest that this floor was contemporaneous with structures C-2 and C-3. On the other side of C-3, the ground was paved with stones (Almeida and Almeida 2015:160). This seems to be an enclosed space, and the paving stones suggest that it was intentionally prepared as an 'outdoor area' (see Figure 37: LJ1).

C-M4 is a small double-wall that is appended to C-3 on one end and to a large boulder on the other. It would have served to retain soil and perhaps also as a buffer between this structure and the large boulder (Almeida and Almeida 2015:159). This phenomenon is also seen in C-M3, which is appended to C-2, and in C-M6, which is appended to C-9. It is conceivable that creating buffers between structures and boulders would have somehow provided extra stability; otherwise these walls would have served to delimit space and retain soil.

C-9's double-wall exhibits smaller stones on the internal face, with the stones of the external face being large and well shaped, often showing use of the iron pick (Almeida and Almeida 2015:164-165). The construction stones were bound together with clay, and the internal face of the wall was plastered and painted yellow. The floor was made of compacted *saibro* and fairly thick. The authors state that there was a hearth in the center of this floor, and they found no evidence of a central stone. A bench made of large, roughly shaped granite blocks lined at least part of the internal perimeter of this structure (Figure 40). The stratigraphy of C-9 strongly substantiates the authors' claim that this structure was both continually inhabited and periodically remodeled throughout Phase III. The stratigraphy of C-9 reveals three separate prepared floors, and its various layers generally exhibit a mix of Roman and indigenous ceramics (Almeida and Almeida 2015:129-131). Once again tree roots disturbed the stratigraphy, but the evidence still places this structure quite credibly in Phase III. The addition of a stone bench in the most recent occupational phase constitutes an instance of genuine remodeling. The presence of a bench is noteworthy in itself, as will be discussed later.

C-M5 is a wall with only one face. Its purpose was clearly to retain soil, thereby helping to maintain a stable surface for C-9 (Figure 41). C-M6 is a wall that is appended on one side to C-9 and on the other side to a large boulder (Almeida and Almeida 2015:160). C-M5 and C-M6 both seem to have been instrumental to the stability of C-9, at the very least by retaining soil. Without sufficient soil retention, the elevated 'terrace' where C-9 is located would have been prone to collapse. Collapses would also pose a threat to the structures nearby, such as C-3 in this case.

Figure 40: General view of C-9, showing its internal stone bench. Note the heavily damaged state of the remains (after Almeida and Almeida 2015).

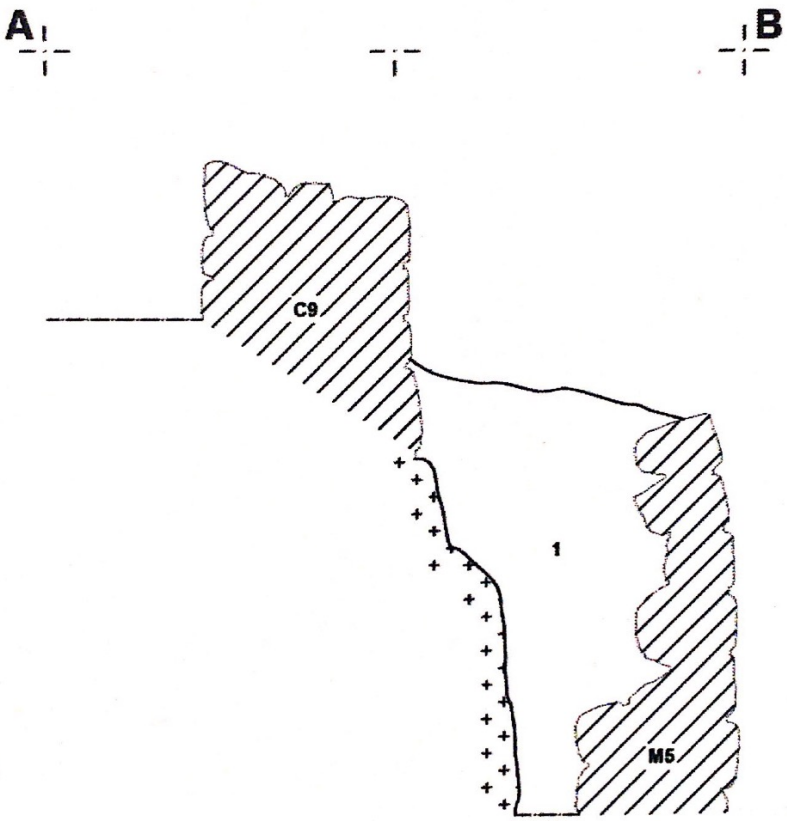


Figure 41: Profile-map showing the relationship between C-9 and C-M5 (after Almeida and Almeida 2015).

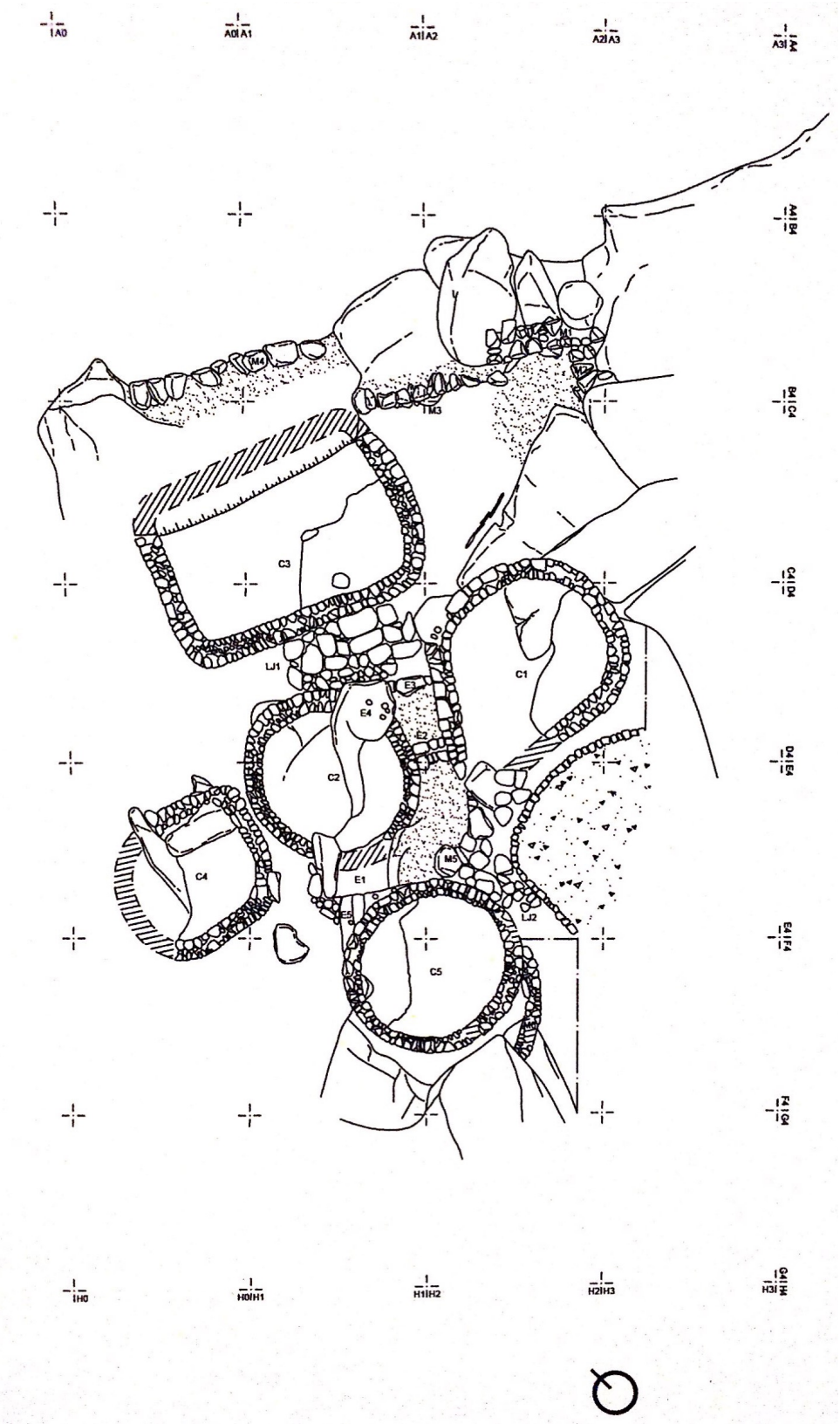


Figure 42: Plan-map for sector CV (after Almeida and Almeida 2015).

The structures from sector CV apparently date to Phase III, and they mostly exhibit similar characteristics to those of sector C (Almeida and Almeida 2015:114-124; Figure 42). 'Remodeling' is well attested, with CV-1, CV-3, and CV-5 clearly exhibiting multiple distinct occupational phases. In general, destruction caused by falling boulders seems to be responsible for much of the remodeling that took place in this sector. This phenomenon is explicitly noted in the case of CV-3, among others (Almeida and Almeida 2015:120). The relationships between structures are clearer in this sector, with structures CV-1, CV-2, CV-3, and CV-5 apparently constituting at least part of a 'nucleus.' Rather than sharing a large, open 'patio,' these structures are connected by narrow, stone-paved pathways. This presumably reflects the fact that in this sector, as in sector C, space was very limited (Figure 43). The structures of sector CV are located at different elevations due to the steep grade of the hill (Figure 35). Various walls serve to retain soil, thereby preventing erosion and increasing the stability of the inhabited 'terraces' (Almeida and Almeida 2015:114). Large boulders dominate this area, and it was necessary to incorporate these into the floors and walls of structures as well as into the steps of the pathways (Almeida and Almeida 2015:114-124). The construction techniques seen in the walls and floors of the structures of sector CV are essentially identical to those observed in sector C.

CV-3 was apparently constructed over a circular structure that had been destroyed by the fall of a large boulder, but only a small portion of the older wall was encountered (Almeida and Almeida 2015:120). In its current state, CV-3 is rectangular with rounded corners. Its entrance faced southwest, towards CV-2 (Almeida and Almeida 2015:115).

Roof tiles were not found in CV-3, and the authors conclude that it was probably covered with vegetable materials (Almeida and Almeida 2015:123).

Strangely, a granite “drum” — the exact same terminology used to describe the central stone of C-1 in sector C — was fixed in the floor of CV-3 near its entrance (Almeida and Almeida 2015:121). The implications of this finding are very unclear; the function of “drums” may not be as straightforward as it seems. If this stone was used as the base for a roof-supporting post, its positioning within the structure (in that it was not centrally located) is problematic.

In terms of remodeling, CV-1 exhibits a similar progression as CV-5 (Almeida and Almeida 2015:120-121). CV-1 seems to have been ‘rebuilt’ multiple times, but its original shape and location remained unchanged. The authors suggest that the elevation of CV-1 was continually raised to avoid damage from the pooling of rainwater around its foundations. They also suggest that, at least in this sector, plates of schist would have been fixed vertically in the ground to create small channels to divert rainwater (Almeida and Almeida 2015:117). Again, they consider the possibility that schist plates were also used to create “gutters” near the roofs.

The authors date CV-4 to Phase IIIA, and they think that it was no longer in use by the time of CV-2’s construction (Almeida and Almeida 2015:120-121). Apparently, CV-4 showed no signs of having been remodeled. Its double-wall mostly exhibited small stones on both faces, but these were interspersed with some larger stones. The construction stones were bound together with clay. CV-4 incorporated large boulders

into both its walls and its *saibro* floor, and the authors attribute its vaguely sub-circular shape to this fact (Almeida and Almeida 2015:120-121).

Almeida and Almeida (2015:122) confirm that the internal faces of CV-1, CV-3, and CV-5 were plastered with *argamassa de barro*. At least in CV-1 and CV-5, the plaster was apparently painted white (Figure 44). CV-1, CV-2, and CV-3 have their entrances oriented roughly southwest; the entrance to CV-5 faces roughly north (Almeida and Almeida 2015:114-115). For the moment, CV-2's only noteworthy characteristic is the fact that it evidently exhibited a central hearth rather than a central stone (Almeida and Almeida 2015:123).

As has been said, the construction techniques employed in this sector do not deviate from the patterns observed in sector C. Given the incomplete nature of the evidence, the authors' claims about the changes in construction techniques between Phase IIIA and Phase IIIB should be regarded as meaningful yet fairly tenuous. Still, it is worth noting that their description of CV-4 seems to agree with their general characterization of the Phase IIIA structures at this site, namely in the smaller dimension of the construction stones.

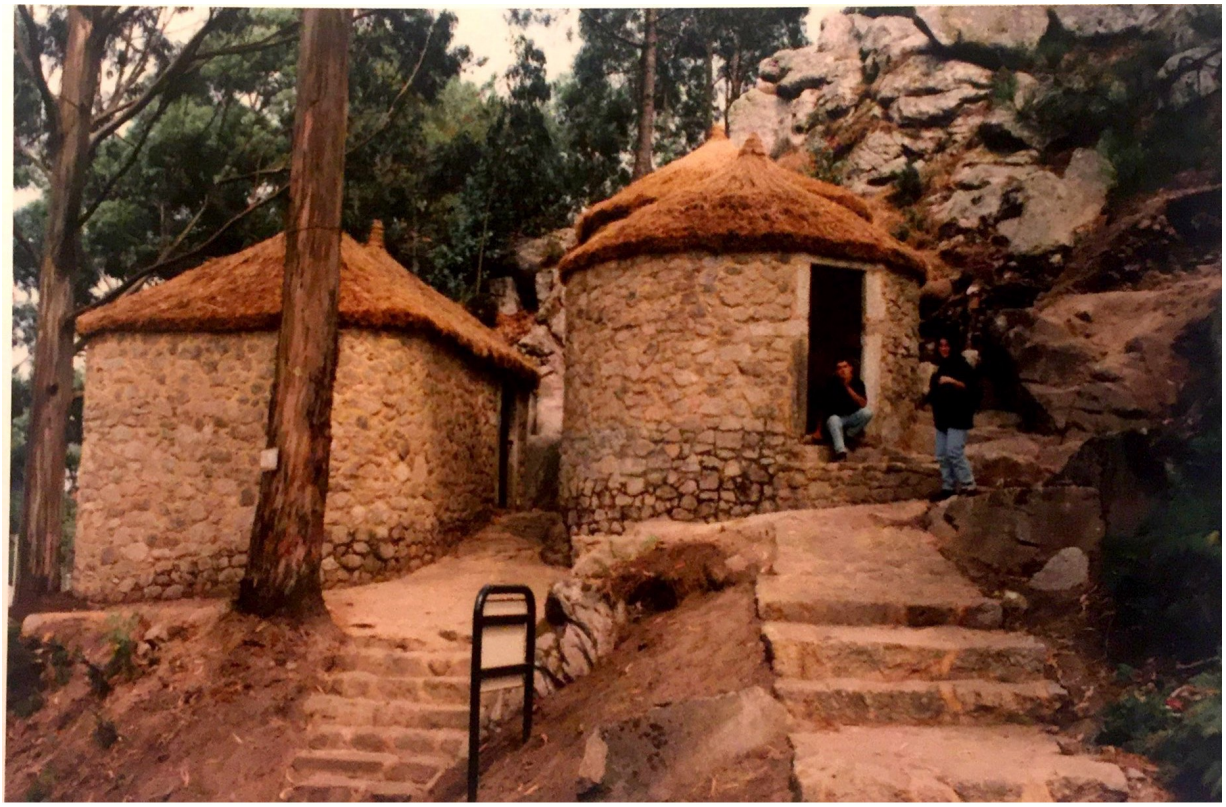


Figure 43: View of the partially reconstructed sector CV, taken from the road (after Almeida and Almeida 2015).

Figure 44: Detail of plaster on the internal wall of CV-5 (after Almeida and Almeida 2015).

In terms of chronology, there is ample support behind the authors' claim that the structures encountered in these two sectors belong mostly to Phase III. The confirmed exception to this is C-4, which clearly dates to Phase II based on radiocarbon dating. The presence of at least one Phase II structure very strongly suggests that the Phase III settlement at São Lourenço was simply a continuation of a well-established, older settlement. Some of the structures in sector C may have belonged to Phase II, and presumably more evidence from this period exists beneath the currently visible remains.

The evidence indicates an uninterrupted series of occupational phases throughout Phase III in both sectors. This is demonstrated by the continual maintenance of structures, often in the form of remodeling. This phenomenon is clearly attested in C-2, C-9, CV-1, CV-3, and CV-5. In most cases, the need for structures to be 'rebuilt' seems to have stemmed from instances of accidental destruction. Explicitly cited examples of this include: damage caused by fire (e.g. C-2), damage caused by the accumulation of rainwater (e.g. CV-1), and damage caused by falling boulders (e.g. CV-3). Again, the authors' chronological interpretations are generally well supported, and for the moment there is nothing to be gained from further digressions on this topic. To skeptically evaluate the authors' claims would require a full presentation of their supporting evidence, and such a process would not be feasible in an investigation of this scale. Furthermore, the result of such an evaluation would not meaningfully interact with the contents of the previous two chapters, because the evidence published for Terroso and Santa Luzia does not even allow for such chronological precision.

With regard to the Phase III structures in sectors C and CV, there are several prominent trends in the construction techniques:

1. Most of the structures are circular or sub-circular, with a few notable exceptions.
2. Every attested floor consists of a thick layer of compacted *saibro*.
3. The structures exhibit double-walls, without exception. The stones of the external face tend to be considerably larger than those of the internal face, with most of the large stones being well shaped with iron tools. The smaller stones are not worked.
4. Small rocks mixed with either clay or *argamassa de barro*, often "yellowish" in color, almost always filled the space between the two rows of each structure's wall. Clay was used in abundance to bind together construction stones, most visibly on the external faces.
5. The use of schist as a construction material is well attested, but its exact function is unknown. The authors assert that plates of schist were used to divert rainwater, whether as channels at ground level or as "gutters" inserted into the external faces of walls directly beneath roofs.
6. Central stones occur frequently in the circular structures. The confirmed exceptions to this are C-9 and CV-2, both of which exhibit central hearths.
7. Tile is generally present, but it is usually not found in high concentrations. The authors think most roofs were perishable, but some (e.g. C-2) were probably tiled.
8. The internal faces of structures were very frequently coated in a layer of *argamassa de barro* and/or "plaster" (at this site, the distinction between these

two terms remains unclear). Based on the authors' observations, this coating was probably always painted, most often being "whitish" or perhaps "yellowish."

This chapter only recounts a handful of structures in detail. The trends listed above are derived not only from these structures, but also from the authors' general observations and from their thorough descriptions of every well-attested structure in the two sectors considered. São Lourenço presents some notable architectural features in addition to these general trends. The structures explicitly discussed in this chapter each present some sort of meaningful deviation from the 'standard' set of characteristics established above. These should all be kept in mind, but it is fitting to briefly discuss a few examples.

The presence of central hearths in C-9 and CV-2 is noteworthy, and C-9 also exhibits a stone bench. A stone with fittings for a "window hinge" was found near sector C, but it was completely out of context. C-3 is one of the only structures with a clearly attested vestibule, and this vestibule takes on an interesting, somewhat elongated form. C-3 also exhibits a fairly confounding central feature, and it contains one of the few preserved doorsills. C-2 is fairly intriguing for its appendant walls and the fact that it seems to incorporate portions of multiple other structures. The presence of a prepared floor between C-2 and C-3 seems to indicate a close relationship between these two structures. The enclosed, stone-paved surface on the other side of C-3 provides one of the very few glimpses of a possible 'patio space' in this sector. The area between C-9 and C-8 also seems to be a patio space, which apparently contained an external hearth in addition to a stone-paved surface (see Figure 37: LJ4). The incomplete nature of the

evidence in sector C, due primarily to the presence of the modern road, prevents most attempts at spatial analysis and does not allow for nuclei to be firmly identified. The frequent use of schist is meaningful, but it mostly reflects the common trend of using the materials that are locally available. This rock does not occur naturally on the monte itself, but it is easily gathered from the nearby shore (Almeida and Almeida 2015:101).

As should now be clear, the natural characteristics of sectors C and CV make this area fairly inhospitable. That is to say, the area presents a number of challenges to effective construction, and inhabiting this space must have come with significant risks. This is evidenced by the frequent occurrence of accidental destruction as well as by the complex, compressed nature of the built space. It is unclear whether each individual mass of granite represents an ‘outcrop’ protruding from below or a ‘boulder’ fallen from above. In any case, these giant rocks posed a significant challenge. Lack of space is another challenge, as demonstrated by the fact that conventional patios are often replaced with narrow pathways. Note also the narrow pathway between C-8 and C-5, and how the peculiar shape of C-8 seems to accommodate the construction of this pathway. C-8 is clearly the result of the 'remodeling' of C-7.

In sector CV, every structure was forced to accommodate the presence of at least one large boulder, frequently by incorporating it into the wall or floor. In addition, the boulders were often slightly worked to accommodate the foundations of structures. This phenomenon is seen in sector C as well, namely in structures C-2 and C-9. The effort required to ‘build around’ these massive granite obstructions, combined with the constant risk of being crushed from above, must have been inconvenient to say the

least. The extreme irregularity and steepness of this area posed another challenge, as apparently there was a great scarcity of flat surfaces for construction. This fact necessitated the use of frequent supporting walls (e.g. C-M5) for the retention of soil, whether to bolster naturally occurring terraces or to enlarge them by partially raising the ground level. The continued stability of many structures would have relied on the permanent existence of these supporting walls, such that the collapse of a single wall could produce disastrous consequences for multiple structures.

All things considered, inhabiting this space not only required a considerable degree of forethought and structural expertise, but also necessitated a certain level of unavoidable risk. Thus, there must have been a very compelling reason to live here, not least the site's defensibility.

On the subject of topography, it is worth noting that São Lourenço differs from Terroso and Santa Luzia in that it does not exhibit a ‘central platform,’ where many structures are able to inhabit a spacious and mostly flat surface. This topic will be discussed further in the next chapter, when all three sites are considered in tandem. Evidence of a fire in sector C has meaningful implications, as one may recall a similar phenomenon at Terroso. The change through time in construction techniques is also similar between the two sites, but speculation on this topic must be reserved until my investigation is able to incorporate evidence from a larger number of sites.

Many peculiarities of São Lourenço are attributable to the natural characteristics of the location. This includes the presence of schist, which appears neither at Terroso nor

at Santa Luzia. The use of schist may seem novel at first, but it is not surprising in light of the local geology. The exclusive use of local materials in construction is entirely consistent with what has been observed at the other two sites. That being said, the presence of this construction material invites speculation. Outside the context of architecture, Carlos Alberto Brochado de Almeida has conducted extensive research on the possible applications of schist in the context of the Castro Culture (e.g. Almeida 2005). His theories about the probable use of schist as a construction material are viable, but further research is required.

This chapter has taken a very different approach, due entirely to the nature of the available evidence. There was no contribution to be made in terms of providing a clear understanding of the site, and there was no need to synthesize data scattered across multiple documents. The only necessary task was to identify the most informative evidence within the context of this investigation, and then to provide a meaningful yet concise account. Despite its limitations, this chapter has provided a great deal of relevant material for comparative analysis and general discussion.

The previous three chapters have established a basic understanding of the evidence from a specific portion of each site. This chapter discusses what has been firmly concluded, making connections between the contents of the previous chapters. First, it is necessary to establish some pertinent concepts and clarify the limitations of this thesis.

The nature of the archaeological remains and the history of excavation are different for each site, which places significant limitations on comparative analysis. The evidence is limited not only by what has been preserved at each site, but also by what has been recorded in the literature. The picture painted by this *available evidence* is incomplete, and any interpretation must account for the fact that only a portion of each site is represented. That being said, some patterns have been established. The following section will compare the similarities in architectural characteristics at each site, and the peculiarities will be pointed out as well.

From the evidence considered at all three sites, construction techniques and architectural forms represent the most fruitful grounds for comparison. In terms of spatial organization, the situation is more problematic. Santa Luzia provides the clearest picture in this regard. Based on available documents, the central platform of this site exhibits a cohesive settlement plan that is clearly divided and subdivided by many delimiting walls. The central platform of Terroso is divided into nuclei, but distinctions are often less clear. This may be because an updated plan-map is only available for the eastern portion of the central platform. At São Lourenço there is no central platform, and the very incomplete nature of the evidence prevents a clear understanding of the built

space, even at smaller scales. The excavators provide very detailed plan-maps for São Lourenço, so a minimal amount of spatial analysis is still possible. One clear conclusion is that the characteristics of the terrain partially determine the nature of the built space, which means that the spatial organization of each site is largely unique.

Despite the limitations imposed by the evidence, certain organizational mechanisms have been clearly identified at each site during Phase III. In addition to their purely functional roles (such as in the prevention of erosion), delimiting walls are used to compartmentalize the built space (creating 'sectors') and to distinguish groups of associated structures (creating 'nuclei'). Stone-paved surfaces are used to define outdoor 'common areas' between associated structures (creating the patio of a nucleus). When space is limited, narrow pathways may replace patios to connect associated structures. Prominent stone-paved roads also seem to play a major role in dividing the built space into 'sectors.' The exception in this regard is São Lourenço, where Phase III roads probably existed but are currently not shown. Terroso and Santa Luzia have far more in common in terms of spatial organization than either site does with São Lourenço. This seems primarily caused by differences in topography, but it may also be influenced by the state of the remains.

The available evidence supports certain generalizations about the architecture; the following trends seem to be held in common by all three sites during Phase III. Most structures are circular, but a variety of deviations from this pattern are attested. Vestibules are fairly common, and they were probably covered with roofs. 'Indoor spaces' have floors made of compacted *saibro* (with clay being a possible alternative), and 'outdoor spaces' are paved with stones. All structures have double-walls, which are typically filled with a mixture of small rocks held with dirt, *saibro*, or clay. Compared to the internal faces of structures, the stones of the external faces are generally larger, flatter, and more regular, often being shaped with iron tools. The use of roof tiles is

attested, but most structures probably used perishable materials for their roofs. Central stones are a very common feature in circular structures, but their function is not always clear. They probably served as the bases for wooden posts, which would have supported conical roofs, but this is not certain. When natural granite outcrops or large boulders are present, it was fairly common to incorporate them into the walls or foundations of various constructions. Finally, all construction materials are locally sourced; granite was used for 'construction stones' and clay or *saibro* for 'mortar.' Painted plaster of an unknown composition was probably used to coat the internal faces of many structures. At São Lourenço there is no evidence for prepared floors within vestibules, and at Santa Luzia there is no evidence for plaster. Given the nature of the available evidence at the two sites in question, these exceptions are perhaps attributable to excavation methodologies and to lack of preserved samples.

In addition to these common trends, there are a number of peculiarities, again pertaining to Phase III. At São Lourenço, even the larger construction stones are bound together with copious amounts of clay, rather than merely being stacked. This may reflect a greater need for structural stability (compare Figure 35 with Figure 22). Central hearths are present in multiple structures at Terroso and São Lourenço. Outdoor hearths are attested at all three sites. Ovens are recorded at Santa Luzia, appearing in a variety of locations. The exact criteria behind the attribution of the terms 'hearth' and 'oven' to archaeological features are mostly unknown, and likely somewhat arbitrary. Further research on this topic is necessary, and a more standardized set of terms with explicit criteria will be essential. Vestiges of drainage channels are tentatively identified

at all three sites, but very few specifics are provided. At least at Santa Luzia, the orientations of doors appear to be influenced by topographical considerations. At all three sites, the relationships between structures seem to have played an important role in determining door orientations, especially within nuclei. The possible role of prevailing winds in determining door orientation is currently undetermined. Santa Luzia is the only site that offers substantial data on the orientation of doors, the placement of doorsills, or the placement of doors within vestibules. At São Lourenço, a possible window hinge was found out of context. Stone benches inside of round structures are recorded at Santa Luzia and São Lourenço, and at Terroso there is a possible wooden bench. The existence of benches around the internal perimeters of structures is very noteworthy; Strabo seems to reference this phenomenon when discussing the inhabitants of Northwest Iberia in book three, chapter three, section seven of his *Geography* (Queiroga 1992:7-10).

Structural measurements represent a very important category of evidence, as well as one of several types of quantitative data that are often overlooked. This investigation was unable to generate a substantial data set for either Terroso or São Lourenço. Thanks primarily to the detailed work of the authors cited in Chapter 3, a relative abundance of structural measurements could be compiled for Santa Luzia. The resulting table is not provided in this thesis, because for the moment there is little to be gained from an in-depth analysis of the values. Establishing statistically significant correlations between various types of structural measurements will require a much larger body of data. I have personally gathered measurements from the castro sites I

have visited, and I will continue to compile these data in the coming years. Eventually, the analysis of a substantial collection of structural measurements may produce significant results for the study of castro architecture, including questions about the function of structures.

The only meaningful portion of the architectural evidence presented in this thesis pertains to Phase III, such that almost nothing was determined about the built space of castros in earlier periods. This result is an accurate representation of the state of available evidence in general, because the vast majority of architectural remains in castros pertain to Phase III. As discussed in Chapter 2, this observation has very important implications. It is the position of this thesis that prevailing theories about 'Roman reorganization' of the built space of castros, including the notion that rectangular forms are a Roman introduction, have yet to be adequately substantiated by available evidence. While these theories are both credible and perfectly feasible, they cannot be accepted with confidence due to the extreme scarcity of architectural evidence dating to Phase II.

Each site has been addressed in detail in the previous three chapters, and the resulting list of architectural commonalities and peculiarities has been compiled above. This constitutes the first aim and contribution of my thesis, which was to provide a thorough and reliable account of the architectural evidence at Terroso, Santa Luzia, and São Lourenço. The second contribution of my thesis was to demonstrate effective research methodology, with an emphasis on ameliorating the deficiencies of the current state of architectural research in the context of castro sites. Together, these two contributions establish the foundations for an updated architectural synthesis of the Castro Culture in Northwest Portugal. But there is more to discuss before this investigation may be satisfactorily concluded.

As noted in previous chapters, the presence of central hearths has implications for roofing. The presence of a central hearth does not allow for the simultaneous presence of a central wooden post, and this much is almost indisputable. Thus the identification of central hearths in multiple structures (e.g. T-6 and C-9) presents two distinct possibilities: 1) the excavators' identification of this central feature as a permanent fireplace was mistaken, or 2) the presence of a central post was not necessary for the structural integrity of roofs. Assuming the excavators had good reason to identify these central features as hearths, the second possibility is unavoidable. This in turn has implications for the identification of central stones as bases for wooden posts. If central posts were not necessary, why are they so prevalent? Alternatively, if central stones were not used as the bases for wooden posts, for what were they used? These questions warrant serious consideration. Moving forward, it will be necessary to

pay closer attention to the specific characteristics of central features. If central stones do take a variety of forms, it is conceivable that different forms may correspond to different functions. In addition, the terms ‘central hearth’ and ‘central stone’ are not sufficiently descriptive.

Roofing represents a major problem in the study of castro architecture, but it usually receives little attention. The prevailing theory is that all circular structures had conical roofs made of vegetable materials, supported by wooden beams and central wooden posts. This theory is so universally accepted that the question of roofing is largely disregarded. The prevailing theory, while intuitive and highly feasible, has yet to be adequately substantiated by archaeological evidence.

Roofing tiles are well attested during Phase III, at the three sites considered in this investigation and elsewhere. The presumption is that a roof made of *tegula* and *imbrex* is not compatible with conical forms and therefore could not be used to cover a circular structure. Experimental archaeology stands to provide a definitive answer to this question, but it has yet to be pursued. Until then, the notion that *tegulae* are generally incompatible with circular structures remains purely speculative. Additionally, there is no reason to assume that all roof tiles must have taken the form of the standard *tegula* and *imbrex*, and it remains possible that alternative forms of roof tiles are simply overlooked. Again, this issue warrants serious consideration and further investigation. In the absence of tiles, little has been attested in terms of roofing material, such that perishable roofs are still the most credible interpretation. Given the lack of knowledge about roofing, the presence of prepared floors serves as the only reliable indication of

roof-covered spaces. This is based on the idea that rainfall poses a significant threat to floors of clay or *saibro*, such that maintaining these floors in an outdoor area would not be worth the trouble. For the moment, this is all that may be known about roofing.

Based on the evidence presented in this thesis, vestibules seem to serve as extensions of the interior spaces of structures. They have often been reconstructed as 'semi-outdoor' covered porches, and sometimes this may have been the case. Based purely on the results of this investigation, vestibules seem to be 'fully indoor' spaces in many cases. This is based on the presence of prepared floors in many vestibules, and it is further supported by the discussion in Chapter 3 of doors placed in vestibules. Still, the results of this small-scale investigation should not be projected on other sites, and it remains likely that different communities used similar architectural forms for different purposes.

At least for the moment, there is no reason to project specific functions onto structures based solely on their forms, but many authors have attempted to do so. For example, Ayán Vila (2008:954) suggests that the nucleus of T-7 (Figure 10) contained a "kitchen/bedroom, silo/*hórreo* or raised granary, and threshing yard floor." While the presence of a kitchen or a bedroom is basically a given in the context of human dwelling spaces, in this specific circumstance his claims are not justified by the evidence. His claims are apparently derived from a "Mediterranean pattern" of enclosed domestic compounds, and he presents compelling evidence for "kitchen" spaces in other castros (Ayán Vila 2008:954-957). Strictly speaking, it would be a drastic exaggeration to say that his claims have no basis. Still, his precise identification of room functions at Terroso

clearly reflects a willingness to project generalizations without supporting them with archaeological evidence.

The fact that one structure is appended to another does not directly imply that it served as a "granary;" though it may conceivably indicate some sort of auxiliary relationship. The fact that a structure has an elevated doorsill does not directly imply that it was used as a "silo;" though ethnographic examples may lend this some minor credibility. An open, stone-paved area does not automatically equate to a "threshing floor." In order for precise identifications to be substantiated, explicit and contextualized evidence must be presented. Archaeobotanical samples stand to provide meaningful insight on the possible identification of certain types of structures as storage rooms or "granaries," but for now the architecture itself lends no credence to such claims. T-7 apparently contains a hearth, which means that at least a portion of this structure was likely used as a "kitchen," but otherwise there is little to be said. Due to its probable wooden bench and peculiar stratigraphy, T-6 can only be described as a 'structure of interest' with a seldom-found archaeological feature. Ayán Vila's claims may be justified in other circumstances, but this investigation has at least confirmed that his casual assignment of room functions is poorly supported in the case of this particular nucleus. Unjustified assumptions have been demonstrated elsewhere (e.g. in Chapters 2.2 and 3.5); the continuation of misleading or inaccurate claims poses a major threat to the progress of architectural research. Given the extreme scarcity of reliable knowledge about castro communities, we cannot afford to take anything for granted.

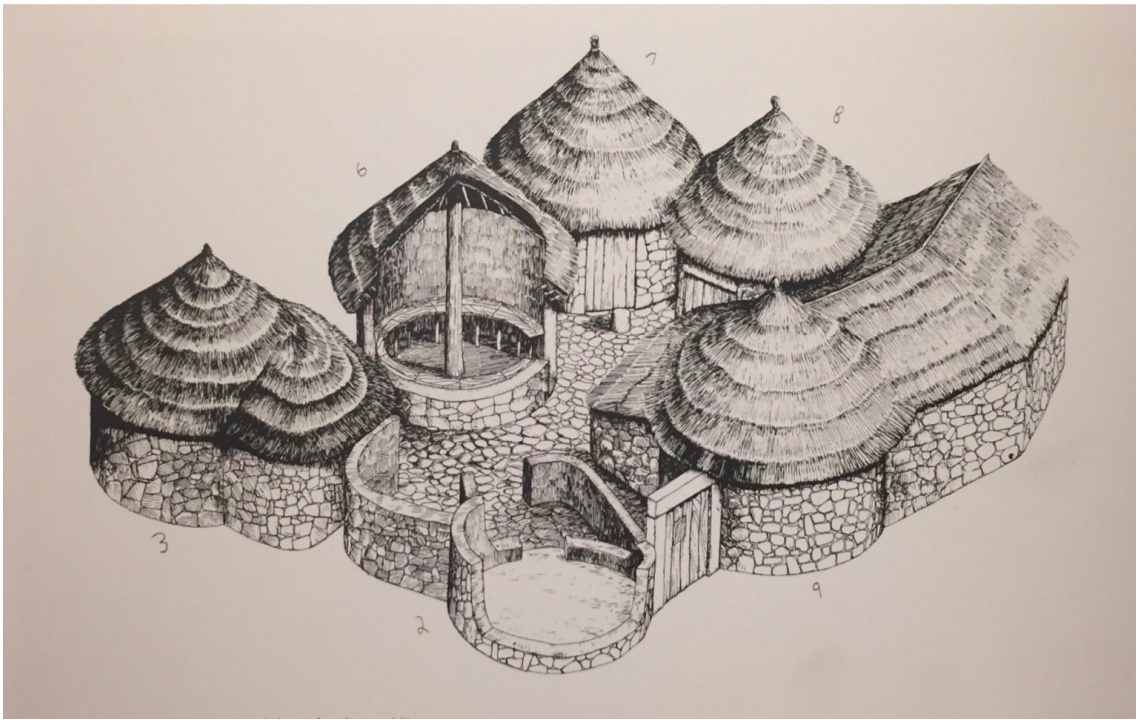


Figure 45: Hypothetical reconstruction of an unnamed nucleus at Terroso. It is clearly the exact same nucleus shown in Figure 10; note the vestibule of T-2 and bench of T-6 (after Gomes 2005).

Despite his identification of a central hearth in T-6, Gomes' hypothetical reconstruction depicts this structure with a central post (Figure 45). Again, the existence of a fireplace in the exact same location as a wooden post is simply inconceivable, and such oversights exemplify the need for a far more rigorous approach to the architecture. Furthermore, clear distinctions must be made between tentative speculations and well-supported inferences, and in this regard one's choice of words is essential. Authors must be intentional and conscientious when distinguishing 'what is' from 'what seems to be' or 'what might possibly be.'

In order for the study of castro architecture to progress, more precise and standardized terminology will be necessary. Relative terms such as 'large' and 'small'

leave much to the imagination, and quantitative data must be preferred when possible. Vague but unavoidable terms such as ‘clay’ or ‘plaster’ should be bolstered with thorough qualitative descriptions and photographs. Explicit criteria must be provided when identifying specific features such as ovens or hearths. In general, greater care must be taken by excavators and authors to provide and interpret a more substantial and detailed body of evidence.

Many questions raised by this thesis warrant further discussion; many problems have not been thoroughly addressed. For example, no effort has been made to speculate about the possible correlations between different types of structural characteristics and the presence of 'special features' such as benches or central hearths. Certain interpretations have not been skeptically evaluated, such as the identification of various 'special features' in the first place, or the chronology of the architecture at São Lourenço and Santa Luzia. Certain types of evidence, such as structural measurements, defensive characteristics, and drainage mechanisms, have not been thoroughly discussed owing to lack of comparative material. In short, there is still much to be done.

Having discussed the results of my thesis, all that remains is to provide further context and direction to this investigation by considering some minor details from other sites in the region. This will also serve the purpose of identifying some future topics of study.

The Castro de Monte Mozinho is a well-known site in the county of Penafiel, in the district of Porto (Almeida 1980; Soeiro 2000-2001). It warrants mention in this thesis because it contains what can only be described as a 'grand enclosure' similar to the one seen at Santa Luzia (Figure 46). The settlement plan visible at this site pertains almost certainly to the Roman Period, and its spatial organization seems very distinct.

Figure 46: General view of Monte Mozinho. Note the 'grand enclosure' in the center (photo: Câmara Municipal de Penafiel http://www.cm-penafiel.pt/).

The Castro de Penices, located in the county of Vila Nova de Famalicão in the district of Braga, is an important site in the context of castro architecture because it provides one of the few examples of Phase I architecture. Circular structures made of perishable materials are clearly attested from this period, and these were later replaced by circular stone structures during Phase II (Queiroga 2015). Phase I structures have also been encountered at the site of São Julião in the county of Vila Verde, district of Braga (Bettencourt 2000; Martins 1988).

The Citânia de Briteiros in the county of Guimarães, in the district of Braga, is perhaps the best known of all the castros in Northwest Portugal. This site offers an informative collection of Phase III architecture, including some examples of the helicoidal pattern (Figure 47). It also exhibits an intriguing and entirely unparalleled construction: a very large, almost perfectly circular structure with a stone bench lining its entire internal perimeter (Figure 48). According to my own measurements, this structure has an approximate diameter of 12 m, with a thick double-wall. It occupies a fairly isolated platform near the edge of the monte, separated from most other visible structures. These characteristics clearly differentiate this structure from the 'grand enclosures' seen at Santa Luzia or Monte Mozinho. Other sites that warrant further study include Citânia de Sanfins in the district of Porto, owing to its size and abundant architecture, and Cividade de Bagunte in the county and Municipality of Vila do Conde, district of Porto, owing to the fact that I am involved in annual excavations at this site. This is only a preliminary and abridged list of a few major sites, but it serves to provide an impression of what lies ahead (Figure 3).

Figure 47: Helicoidal pattern on a structure at Briteiros (photo by author).

Figure 48: The very large circular structure at Briteiros (photo by author).

Having provided a thorough account of the architectural evidence, discussed the results of this process, and established the 'path forward,' this investigation has reached its logical conclusion. In the coming years, evidence will be added on a site-by-site basis, following the same rigorous methodology. The addition of further evidence will allow for increasingly sophisticated analyses and more meaningful discussions. The eventual result will be the publication of a substantial architectural synthesis of the Castro Culture in Northwest Portugal, which stands to make very meaningful contributions to the current and future state of research. Many topics and discussions remain unresolved, owing primarily to the small and incomplete body of evidence considered. But my thesis has established the foundations for a promising line of inquiry, and in this way it has accomplished its goal.

In closing, it is worth noting that the thorough and often tedious reproduction of evidence, as well as the rigorous and skeptical interpretation of evidential details, is not the point; it is the means to an end. The point of studying castro architecture is to gain insight into the communities who built it. Many researchers have expressed a compelling desire to move beyond descriptive works in order to gain such insight. The inevitable conclusion of this thesis is that, in order to move beyond descriptive works, they must first be completed. Only then may we effectively pursue our goal, which is to reconstruct a living glimpse of the *Cidades mortas*.

T-1: Terroso, structure 1

Lz-1: Santa Luzia, structure 1

C-1: São Lourenço, sector C, structure 1

CV-1: São Lourenço, sector CV, structure 1

Above demonstrates how structures are referenced in this thesis. The numbers assigned to each structure are simply the numbers used by the excavators. Most authors refer to the structures at their sites as “Casa 1," "Casa 2,” and so on. Instead, I take the exact numbers they used to identify their structures and attach the appropriate 'site prefix.' This makes it perfectly clear which structure is being discussed in every case, without the need to label anything as a 'house.'

appendant wall: Literally, this term describes any wall that is attached to (appended to) the main body of a structure. This includes walls used to create vestibules.

***argamassa*:** Literally, this word means "mortar," which is the direct translation. But in castro archaeology the term has more specific connotations, because the "mortar" used in castro structures had a specific composition. At least in *Entre Douro e Minho* castros, *argamassa* seems to most often consist of various combinations of *saibro*, dirt, and clay, often mixed with gravel. This generalization is based on my knowledge about the three sites considered in this thesis and from my excavations at Cividade de Bagunte. Still, the implications of the term are often ambiguous. For example, when an author states that stones are bound together with *argamassa de barro* ("clay mortar"), it is unclear whether clay is the primary ingredient of the mortar or the *only* ingredient. At São Lourenço, the authors seem to use both *argamassa* and *argamassa de barro* to describe specific substances, i.e. not just as generic terms for mortar. As discussed in Chapter 5, this is an instance of the sort of descriptive ambiguity that complicates the research process.

castro: In the context of my thesis, the term 'castro' may function as an adjective, referring to the distinct set of evidential patterns that characterize the Castro Culture, as defined in Sections 1.2 through 1.3. The use of this adjective indicates that the object or entity in question, whether it be an ancient community, a behavioral pattern, or an artifact, is a manifestation or product of the Castro Culture. Alternatively, it may simply describe something that pertains to the culture, such as in the phrase 'castro research.' The term 'castro' may also function as a noun, referring to an individual castro settlement. Etymologically, the term (ultimately rooted in the Latin *castrum*) is a reference to the highly visible fortifications that characterize these Iron Age and Roman Period settlements. The noun may be roughly translated into English as the word “hillfort.” The terms 'Castro Culture,' 'Cultura dos Castros,' and 'Cultura Castreja' are all synonymous.

delimiting wall: Here, 'delimit' is used in the sense of establishing or indicating a boundary, such that two spaces are separated or distinguished from each other. The term 'delimiting wall' describes any wall that serves to delimit areas of built space. In most cases, it is a catchall term used to describe any non-defensive wall that is neither part of a vestibule nor a structure. Even when walls are constructed specifically for soil retention, they tend to delimit space as a result. Delimiting walls are often appended to structures, especially in the context of nuclei, but this also varies (for example, this occurs more frequently at Terroso than at Santa Luzia, where the nuclei are more often surrounded by independent perimeters).

double-wall: This term does not describe a set of two walls; it describes a single wall composed of two rows of stones. Here the word 'row' describes a repeating series of vertically stacked stones. The term 'course' is used to describe the horizontal alignments of stones; thus one course is repeatedly laid atop the other to create a row. In a double-wall, this process of laying courses to form rows takes place twice: once for the internal face of the structure and again for the external face. The space between these rows is filled with some sort of binding material, with the result being a solid wall.

Haltern 70: In general, an amphora is a Roman vessel used to transport various commodities. 'Haltern 70' is a typological designation used in the formal classification of amphorae. The Haltern 70 type is found roughly from the beginning of the first century B.C.E. until the end of the second century C.E., and it is very common in Northwest Iberia during this period (Carreras 2005).

helicoidal: See Chapter 3.1

main body: This term simply refers to the structure itself, used in a handful of instances to differentiate between a structure and its vestibule.

monte: A somewhat vague Portuguese term used to describe a geological formation that is definitely larger than a hill but not quite large enough to be a mountain.

patio / nucleus: See Chapter 2.4

platform / terrace: In this thesis, the term 'platform' describes a large, naturally occurring, relatively flat area; the term 'terrace' describes a small, artificially maintained, relatively flat area. The words themselves are somewhat interchangeable, and my artificial distinction between the two is purely for descriptive convenience.

***saibro*:** In simple terms, this word refers to decomposed granite. As stated by Twidale and Vidal Romaní, it is "weathered granite or grus (also gruss, jabre, xábrego, sauló, **saibro**, arène)," the byproduct of the subsurface weathering of granite bedrock, caused by the intrusion of rainwater. Subsurface weathering breaks down the solid bedrock into *saibro*, and this substance often constitutes most of the area between the bedrock and the surface soil. The subsurface weathering of granite also produces clay and various minerals, not just *saibro*. Exactly what is produced depends on the composition of the granite itself. Thus the term *saibro* has a precise definition in geology, but it is difficult to tell exactly what an excavator is describing when they simply say "*saibro*." Presumably

they are able to visually distinguish between *saibro* and clay, but from personal experience it is not always a straightforward distinction. From what I have seen in the northwest of Portugal, *saibro* often takes the form of a thick powdery substance, with earthy tones ranging from orange to light yellow.

Silva's chronological framework / Phases I, II, III: See Figure 4. For more information on this chronological framework, see Silva 1986 (and the 2007 reedition). For more information in English on radiometric chronologies of the Castro Culture, see Parcero Oubiña 2004 and Queiroga 1992 (or the 2003 facsimile edition, published by British Archaeological Reports). Silva's chronological framework is used throughout this thesis as a matter of consistency and convenience. In my usage, each Phase refers to a specific period of time, nothing more.

vestibule: In general use, this word describes an entryway. This concept applies, but in the context of castro archaeology the term and its various Portuguese synonyms (e.g. *vestíbulo*, *alpendre*, *átrio*, *caranguejo*) have a more precise definition. Here it is used to refer to a specific architectural form, in which two (or more -- see T-2) appendant walls enclose the area directly in front of the entrance to a structure's main body. The two appendant walls used to create a vestibule are sometimes referred to as 'pincers.'

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BIOGRAPHY

John Duncan Hurt was born in Plano, Texas in 1994. He attended the University of Texas at Austin for his Bachelor of Arts, majoring in Anthropology, Classical Archaeology, and Plan II Honors. After two summers of archaeological fieldwork in Vila do Conde, Portugal (with the Bagunte Project, which is a long-term excavation as well as an annual field school and UT study abroad opportunity), he became determined to continue pursuing research in this region. After graduation he will go to Vila do Conde, and then he will return to UT's Department of Anthropology to begin working toward his Master's and Ph.D. His goal is to become a professor, in order that he may continue pursuing archaeological research and, hopefully, contribute something worthwhile to the lives of future students and scholars.